



# Marco Stagioni

PHD TECHNICIAN AND ADJUNCT PROFESSOR

Marine Biology and Fisheries Lab - Dept. BiGeA - Alma Mater Studiorum University of Bologna

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## Research activities and skills

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- National and international research project on demersal resources, small-big pelagic fishes: monitoring, management, sampling and ageing.
- Onboard fisheries researcher: scientific vessel Andrea (MEDITS project - GSA17) planning, management, data collection and analysis, scientific devices maintenance.
- Trophic net and stomachs contents analysis of demersal fishes.
- Population genetic data analysis.
- Taxonomist for main marine systematic groups (Crustacea, Mollusca, Fishes, ecc.)
- Hard part sample processing for sclerochronology (embedding, cutting, grinding, polishing, ecc.).
- Geometrical and elliptic fourier analysis for morphometric studies.
- Laser ablation - microchemical analysis of otoliths.
- Optical microscope and SEM digital images acquisition, processing and analysis.
- Univariate and multivariate statistical analyses with open source R software and related ecology, spatial mapping, morphometry, genetic and advanced plotting packages.
- Literate programming and reporting with R, RStudio and Rmarkdown languages.

## Work experience

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*Showed only last 15 years*

### Marine Biology and Fisheries Lab. - Dept. Bigea - Alma Mater Studiorum University of Bologna

PHD TECHNICIAN AND ADJUNCT PROFESSOR

*Fano (PU), Italy*

*from dec 2013*

### Marine Biology and Fisheries Lab. - Dept. Bigea - Alma Mater Studiorum University of Bologna

PHD DOCTORATE GRANT

*Fano (PU), Italy*

*Jan 2011 - Dec 2013*

### Marine Biology and Fisheries Lab. - Dept. Bigea - Alma Mater Studiorum University of Bologna

TECHNICIAN FIXED TERM CONTRACT

*Fano (PU), Italy*

*May 2007 - Dec 2010*

### Marine Biology and Fisheries Lab. - Dept. Bigea - Alma Mater Studiorum University of Bologna

FELLOWSHIP

*Fano (PU), Italy*

*Feb 2005 - Apr 2007*

## Education

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### Alma Mater Studiorum University of Bologna

PHD PROGRAMME DEGREE - ENVIRONMENTAL SCIENCE: CONSERVATION AND MANAGEMENT OF NATURAL RESOURCES

*Ravenna, Italy*

*2014*

### Alma Mater Studiorum University of Bologna

MASTER'S DEGREE - ENVIRONMENTAL SCIENCE — MARINE ECOLOGY

*Ravenna, Italy*

*2000*

### ITIS G. Marconi

SECONDARY SCHOOL DIPLOMA IN CHEMISTRY

*Forlì, Italy*

*1994*

## Teaching

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- from 2011
  - Fisheries resources biology: *Fisheries biology module*

# Training

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## Adriamed

STUDY GROUP ON INTERCALIBRATION OF FISH OTOLITH READING (ANCHOVY) (SG-OTH)

Ancona, Italy

2017

## Adriamed

WORKSHOP ON AGEING VALIDATION METHODOLOGY OF MULLUS SPECIES (WKVALMU)

Conversano (BA), Italy

2017

## Adriamed

STUDY GROUP ON INTERCALIBRATION OF FISH OTOLITH READING (ANCHOVY) (SG-OTH)

Split, Croatian

2017

## COISPA

WORKING GROUP ON ALADYM (AGE-LENGTH BASED DYNAMIC MODEL)

Bari, Italy

2011

## ICES - IFREMER

WORKSHOP OF NATIONAL AGE READINGS COORDINATORS - WKNARC

Boulogne sur Mer, France

2011

## Alma Mater Studiorum University of Bologna

STATISTICAL METHODS FOR ENVIRONMENTAL SCIENCES: TIME SERIES ANALYSIS

Ravenna, Italy

2011

## Adriamed

TRAINING COURSE ON: VIRTUAL POPULATION ANALYSIS (VPA) METHODS IN FISH STOCK ASSESSMENT

Rome, Italy

2010

# Publications

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1. Riccioni, G., Stagioni, M., Manfredi, C., Tinti, F., Piccinetti, C., & Libralato, S. (2022). DNA metabarcoding suggests dietary niche partitioning in the Adriatic European hake. *Scientific Reports*, 12(1). <https://doi.org/10.1038/s41598-022-05346-0>
2. Mancuso, A., Yam, R., Prada, F., Stagioni, M., Goffredo, S., & Shemesh, A. (2022). Oxygen and carbon isotope variations in Chamelea gallina shells: Environmental influences and vital effects. *Geobiology*. <https://doi.org/10.1111/gbi.12526>
3. Palazzo, Q., Stagioni, M., Raaijmakers, S., Belleman, R. G., Prada, F., Hammel, J. U., Fermani, S., Kaandorp, J., Goffredo, S., & Falini, G. (2022). Multiscale analysis on otolith structural features reveals differences in ontogenesis and sex in Merluccius merluccius in the western Adriatic Sea. *Royal Society Open Science*, 9(5). <https://doi.org/10.1098/rsos.211943>
4. Catalano, G., Crobe, V., Ferrari, A., Baino, R., Massi, D., Titone, A., Mancusi, C., Serena, F., Cannas, R., Carugati, L., Hemida, F., Manfredi, C., Melis, R., Scarcella, G., Sion, L., Stagioni, M., Tinti, F., & Cariani, A. (2022). Strongly structured populations and reproductive habitat fragmentation increase the vulnerability of the Mediterranean starry ray Raja asterias (Elasmobranchii, Rajidae). *Aquatic Conservation: Marine and Freshwater Ecosystems*, 32(1), 66–84. <https://doi.org/10.1002/aqc.3739>
5. Cheli, A., Mancuso, A., Azzarone, M., Fermani, S., Kaandorp, J., Marin, F., Montroni, D., Polishchuk, I., Prada, F., Stagioni, M., Valdré, G., Pokroy, B., Falini, G., Goffredo, S., & Scarponi, D. (2021). Climate variation during the Holocene influenced the skeletal properties of Chamelea gallina shells in the North Adriatic Sea (Italy). *PLoS ONE*, 16(3 March). <https://doi.org/10.1371/journal.pone.0247590>
6. Peristeraki, P., Bitetto, I., Carbonara, P., Carlucci, R., Certain, G., De Carlo, F., Gristina, M., Kamidis, N., Pesci, P., Stagioni, M., Valls, M., & Tserpes, G. (2019). Investigation of spatiotemporal patterns in mean temperature and mean trophic level of MEDITS survey catches in the Mediterranean sea [Investigacion de los patrones espacio-temporales de la temperatura media y el nivel trófico medio de las capturas de la campaña MEDITS en el mediterráneo]. *Scientia Marina*, 83(S1), 165–174. <https://doi.org/10.3989/scimar.04835.12A>
7. Mancuso, A., Stagioni, M., Prada, F., Scarponi, D., Piccinetti, C., & Goffredo, S. (2019). Environmental influence on calcification of the bivalve Chamelea gallina along a latitudinal gradient in the Adriatic Sea. *Scientific Reports*, 9(1), 11198. <https://doi.org/10.1038/s41598-019-47538-1>
8. Riccioni, G., Stagioni, M., Piccinetti, C., & Libralato, S. (2018). A metabarcoding approach for the feeding habits of European hake in the Adriatic Sea. *Ecology and Evolution*, 8(21), 10435–10447. <https://doi.org/10.1002/ece3.4500>
9. Ferrari, A., Tinti, F., Maresca, V. B., Velonà, A., Cannas, R., Thasitis, I., Costa, F. O., Follasa, M. C., Golani, D., Hemida, F., Helyar, S. J., Mancusi, C., Mulas, A., Serena, F., Sion, L., Stagioni, M., & Cariani, A. (2018). Natural history and molecular evolution of demersal Mediterranean sharks and skates inferred by comparative phylogeographic and demographic analyses. *PeerJ*, 2018(9). <https://doi.org/10.7717/peerj.5560>
10. Riccioni, G., Cariani, A., Ferrara, G., Cannas, R., Melis, R., Stagioni, M., Addis, P., & Tinti, F. (2017). Evolutionary constraints limiting the variation of Expressed Sequence Tag-linked microsatellite loci, prevent the detection of local adaptation in Mediterranean Bluefin tuna. *Fisheries Research*, 190, 157–163. <https://doi.org/10.1016/j.fishres.2017.02.011>

11. Montanini, S., Stagioni, M., Benni, E., & Vallisneri, M. (2017). Ontogenetic changes in otolith morphology and shape analyses in *Chelidonichthys cuculus* (Linnaeus, 1758) and *Chelidonichthys lucerna* (L., 1758). *Journal of Applied Ichthyology*, 33(2), 217–220. <https://doi.org/10.1111/jai.13299>
12. Leone, A., Urso, I., Damalas, D., Martinsohn, J., Zanzi, A., Mariani, S., Sperone, E., Micarelli, P., Garibaldi, F., Megalofonou, P., Bargelloni, L., Franch, R., Macias, D., Prodöhl, P., Fitzpatrick, S., Stagioni, M., Tinti, F., & Cariani, A. (2017). Genetic differentiation and phylogeography of Mediterranean-North Eastern Atlantic blue shark (*Prionace glauca*, L. 1758) using mitochondrial DNA: Panmixia or complex stock structure? *PeerJ*, 2017(12). <https://doi.org/10.7717/peerj.4112>
13. Montanini, S., Stagioni, M., Benni, E., & Vallisneri, M. (2017). Feeding strategy and ontogenetic changes in diet of gurnards (Teleostea: Scorpaeniformes: Triglidae) from the Adriatic Sea. *European Zoological Journal*, 84(1), 356–367. <https://doi.org/10.1080/24750263.2017.1335357>
14. Cariani, A., Messinetti, S., Ferrari, A., Arculeo, M., Bonello, J. J., Bonnici, L., Cannas, R., Carbonara, P., Cau, A., Charilaou, C., El Ouamari, N., Fiorentino, F., Follesa, M. C., Garofalo, G., Golani, D., Guarniero, I., Hanner, R., Hemida, F., Kada, O., ... Tinti, F. (2017). Improving the conservation of mediterranean chondrichthyans: The ELASMOMED DNA barcode reference library. *PLoS ONE*, 12(1). <https://doi.org/10.1371/journal.pone.0170244>
15. Gizzi, F., Caccia, M. G., Simoncini, G. A., Mancuso, A., Reggi, M., Fermani, S., Brizi, L., Fantazzini, P., Stagioni, M., Falini, G., Piccinetti, C., & Goffredo, S. (2016). Shell properties of commercial clam *Chamelea gallina* are influenced by temperature and solar radiation along a wide latitudinal gradient. *Scientific Reports*, 6. <https://doi.org/10.1038/srep36420>
16. Frodella, N., Cannas, R., Velonà, A., Carbonara, P., Farrell, E. D., Fiorentino, F., Follesa, M. C., Garofalo, G., Hemida, F., Mancusi, C., Stagioni, M., Ungaro, N., Serena, F., Tinti, F., & Cariani, A. (2016). Population connectivity and phylogeography of the Mediterranean endemic skate *Raja polystigma* and evidence of its hybridization with the parapatric sibling *R. montagui*. *Marine Ecology Progress Series*, 554, 99–113. <https://doi.org/10.3354/meps11799>
17. Montanini, S., Stagioni, M., Valdrè, G., Tommasini, S., & Vallisneri, M. (2015). Intra-specific and inter-specific variability of the sulcus acusticus of sagittal otoliths in two gurnard species (Scorpaeniformes, Triglidae). *Fisheries Research*, 161, 93–101. <https://doi.org/10.1016/j.fishres.2014.07.003>
18. Chitipothu, S., Cariani, A., Bertasi, F., Stagioni, M., Kochzius, M., Blohm, D., Tinti, F., & Landi, M. (2014). Invertebrate DNA chip: Opportunities and challenges in the development and application of microarrays for marine biodiversity studies. In *Microarrays: Principles, Applications and Technologies* (pp. 101–133). <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84953404337&partnerID=40&md5=dca96ad4013a0442d480d24dd6cf60b1>
19. Vallisneri, M., Tommasini, S., Stagioni, M., Manfredi, C., Isajlović, I., & Montanini, S. (2014). Distribution and some biological parameters of the red gurnard, *Chelidonichthys cuculus* (Actinopterygii, Scorpaeniformes, Triglidae) in the north-central Adriatic Sea. *Acta Ichthyologica Et Piscatoria*, 44(3), 173–180. <https://doi.org/10.3750/AIP2014.44.3.01>
20. Milano, I., Babbucci, M., Cariani, A., Atanassova, M., Bekkevold, D., Carvalho, G. R., Espiñeira, M., Fiorentino, F., Garofalo, G., Geffen, A. J., Hansen, J. H., Helyar, S. J., Nielsen, E. E., Ogden, R., Patarnello, T., Stagioni, M., Tinti, F., & Bargelloni, L. (2014). Outlier SNP markers reveal fine-scale genetic structuring across European hake populations (*Merluccius merluccius*). *Molecular Ecology*, 23(1), 118–135. <https://doi.org/10.1111/mec.12568>
21. Riccioni, G., Stagioni, M., Landi, M., Ferrara, G., Barbujani, G., & Tinti, F. (2013). Genetic structure of bluefin tuna in the mediterranean sea correlates with environmental variables. *PLoS ONE*, 8(11). <https://doi.org/10.1371/journal.pone.0080105>
22. Stagioni, M., Montanini, S., & Vallisneri, M. (2013). Feeding habits of anglerfish, *Lophius budegassa* (Spinola, 1807) in the Adriatic Sea, north-eastern Mediterranean. *Journal of Applied Ichthyology*, 29(2), 374–380. <https://doi.org/10.1111/jai.12148>
23. Stagioni, M., Montanini, S., & Vallisneri, M. (2012). Feeding of tub gurnard *Chelidonichthys lucerna* (Scorpaeniformes: Triglidae) in the north-east Mediterranean. *Journal of the Marine Biological Association of the United Kingdom*, 92(3), 605–612. <https://doi.org/10.1017/S0025315411000671>
24. Vallisneri, M., Montanini, S., & Stagioni, M. (2012). Size at maturity of triglid fishes in the Adriatic Sea, northeastern Mediterranean. *Journal of Applied Ichthyology*, 28(1), 123–125. <https://doi.org/10.1111/j.1439-0426.2011.01777.x>
25. Pasolini, P., Ragazzini, C., Zaccaro, Z., Cariani, A., Ferrara, G., Gonzalez, E. G., Landi, M., Milano, I., Stagioni, M., Guarniero, I., & Tinti, F. (2011). Quaternary geographical sibling speciation and population structuring in the Eastern Atlantic skates (suborder Rajoidea) *Raja clavata* and *R. straeleni*. *Marine Biology*, 158(10), 2173–2186. <https://doi.org/10.1007/s00227-011-1722-7>
26. Vallisneri, M., Stagioni, M., Montanini, S., & Tommasini, S. (2011). Body size, sexual maturity and diet in *Chelidonichthys lucerna* (Osteichthyes: Triglidae) from the Adriatic Sea, north eastern Mediterranean [Veličina, spolna zrelost i ishrana lastavice balavice, *Chelidonichthys lucerna* (Osteichthyes: Triglidae), u jadranskom moru]. *Acta Adriatica*, 52(1), 141–148. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84868513473&partnerID=40&md5=5072052e69c16ce8de4f09888475f1c1>

27. Stagioni, M., Montanini, S., & Vallisneri, M. (2011). Feeding habits of European hake, *Merluccius merluccius* (Actinopterygii: Gadiformes: Merlucciidae), from the northeastern Mediterranean sea. *Acta Ichthyologica Et Piscatoria*, 41(4), 277–284. <https://doi.org/10.3750/AIP2011.41.4.03>
28. Montanini, S., Stagioni, M., & Vallisneri, M. (2010). Diet of the grey gurnard, *Eutrigla gurnardus* in the Adriatic Sea, north-eastern Mediterranean. *Cybium*, 34(4), 367–372. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-79952295121&partnerID=40&md5=da2daeec0de00483edf91e23c36fefa4>
29. Vallisneri, M., Montanini, S., & Stagioni, M. (2010). Length-weight relationships for the family Triglidae in the Adriatic Sea, northeastern Mediterranean. *Journal of Applied Ichthyology*, 26(3), 460–462. <https://doi.org/10.1111/j.1439-0426.2009.01389.x>