

## EDUCATION

- 2010 - Ph.D. in *Environmental Monitoring* - University of Basilicata, Potenza, Italy
- 2002 - MSc in *Biology* (110/110 *cum laude*), University of Genova, Genova, Italy

## ACADEMIC QUALIFICATIONS

- 2022 - **Adjunct Professor** of "*Technologies for the bio-marine monitoring*" - Master of Science in Biological Sciences, University of Genova, Genova, Italy
- *since 2021* - **Doctoral Advisory Committee member** (PhD Board Member) - "*Security, risk and vulnerability*" Doctoral course, University of Genova, Genova, Italy
- *since 2021* - **Lecturer** of "*Monitoring methods for cetaceans*" - Master of Science in Biological Sciences, University of Genova, Genova, Italy
- 2005/2010 - **Lecturer** of "*Biology of cetaceans*" and "*Cetacean Monitoring Techniques*" - Master of Science in Biological Sciences, University of Genova, Genova, Italy
- 2005 - **Exam Committee Member** (namely "Cultore della materia"), University of Genova, Genova, Italy

## EMPLOYMENT HISTORY (only relevant positions)

- *since 2014* - **Senior Researcher** - CIMA Research Foundation, Savona, Italy
- 2013/2014 - **Researcher** - CIMA Research Foundation, Savona, Italy
- 2010/2013 - **Post Doc** - University of Genova - DIBRIS, Genova, Italy
- 2006/2010 - **PhD scholar** - University of Basilicata, Potenza, Italy
- 2003/2005 - **Research Assistant** - DIBIO, University of Genova, Italy

## INVITED POSITIONS AND DISTINCTIONS

- *since 2020* - **Invited member** - Marine Mammal Group, International Society of Zoological Sciences
- *since 2020* - **Regional IUCN assessor**
- *since 2016* - **National Expert**, PELAGOS Agreement Scientific Committee
- *since 2015* - **Population Dynamics Specialist Group member**, ACCOBAMS
- *since 2014* - **National Expert**, ACCOBAMS Scientific Committee
- *since 2012* - **Invited member**, Zoological Society of Cabo Verde
- *since 2010* - **Invited Researcher**, University of Porto - CIIMAR, Porto, Portugal
- *since 2009* - **District Referent** (Liguria region), National Marine Mammals Stranding Network
- 2014 - **Invited Senior Researcher**, Beibu Gulf University, Qinzhou, China
- 2010 - **Invited Expert**, Development Cooperation Office of the Embassy of Italy in China, Beijing
- 2009 - **Invited Expert**, University of British Columbia - Fisheries Centre, Vancouver, Canada
- 2008 - **Visiting Scholar**, University of British Columbia - Fisheries Centre, Vancouver, Canada

## TECHNICAL SKILLS / EXPERIENCE

- **Chief Scientist** in scientific cruises: ~ 500 days at sea (since 2010)
- **Co-I** in scientific cruises: ~ 250 days at sea (since 2002)
- **Photo-identification / Mark Recapture** on 24 different marine mammal species (since 2002)
- **Tagging boat driver** (RHIBs) for **biopsy** collection on 13 different marine mammal species (since 2011)
- **Biopsy sampling operator** on 9 different marine mammal species (since 2014)
- **Blow sampling operator** on 6 different marine mammal species (since 2017)
- **UAV photogrammetry operator** on 3 different marine mammal species (42 hours, since 2017)

## TECHNICAL LICENSES

- 2020 - **UAV pilot - Critical Operations L-CRO**, for <25kg UAVs - Issued by ENAC - Italian Civil Aviation Authority
- 2015 - **UAV pilot - Basic Operations VL**, for <25kg UAVs - Issued by ENAC - Italian Civil Aviation Authority
- 2014 - **JNCC Marine Mammal Observer (MMO)**, Joint Nature Conservation Committee
- 2009 - **IUCN Red List Assessor** training course, University of British Columbia, CA
- 2003 - **Boating License**, for motor / sailing boat <24m - No distance limit from the coast - Issued by the Italian Ministry of Transport
- 2002 - **Qualifying examination for the Italian Register of Biologists**, University of Genova, Italy

Score: 150/150

- 1996 - **PADI open water diver**, Savona

## SELECTED PEER-REVIEWED PUBLICATIONS

1. Mingming Liu, Mingli Lin, Xiaoyu Huang, Zixin Yang, Francesco Caruso, Matteo Bains, Alessandro Bocconcelli, Massimiliano Rosso, Songhai Li (2023). Floating macro-litter pollution in the northern South China Sea, *Environmental Pollution*, 316:2, ISSN 0269-7491, <https://doi.org/10.1016/j.envpol.2022.120527>.
2. Oliveira-Rodrigues, C., Correia, A.M., Valente, R. et al. Assessing data bias in visual surveys from a cetacean monitoring programme. *Sci Data* 9, 682 (2022). <https://doi.org/10.1038/s41597-022-01803-7>
3. A.B. Onoufriou, O.E. Gaggiotti, N. Aguilar de Soto, M. L. McCarthy, P. A. Morin, M. Rosso, M. Dalebout, N. Davison, R. W. Baird, C. S. Baker, S. Berrow, A. Brownlow, D. Burns, F. Caurant, D. Claridge, R. Constantine, F. Demaret, S. Dreyer, M. Đuras, J. W. Durban, A. Frantzis, L. Freitas, G. Genty, A. Galov, S. S. Hansen, A. C. Kitchener, V. Martin, A. A. Mignucci-Giannoni, V. Montano, A. Moulins, C. Olavarría, M. M. Poole, C. Reyes Suárez, E. Rogan, C. Ryan, A. Schiavi, P. Tepsich, J. Urban R., K. West, M. Tange Olsen, E. L. Carroll. 2022. Biogeography in the deep: Hierarchical population genomic structure of two beaked whale species. *Global Ecology and Conservation*, 40(2022) e02308. <https://doi.org/10.1016/j.gecco.2022.e02308>
4. Bigal, Eyal, Ori Galili, Itai van Rijn, Massimiliano Rosso, Christophe Cleguer, Amanda Hodgson, Aviad Scheinin, and Dan Tchernov. 2022. "Reduction of Species Identification Errors in Surveys of Marine Wildlife Abundance Utilising Unoccupied Aerial Vehicles (UAVs)" *Remote Sensing* 14, no. 16: 4118. <https://doi.org/10.3390/rs14164118>
5. Zongyao Yang, Xueying Yu, Simon Dedman, Massimiliano Rosso, JingminZhu, Jiaqi Yang, Yuxiang Xia, YichaoTian, Guangping Zhang, JingzhenWang (2022). UAV remote sensing applications in marine monitoring: Knowledge visualization and review. *Science of The Total Environment*, 838:1 (September), 155939. <https://doi.org/10.1016/j.scitotenv.2022.155939>
6. \*Tian, Y., Yang, Z., Yu, X., Jia, Z., Rosso, M., et al. (2022). Can we quantify the aquatic environmental plastic load from aquaculture? *Water Research*, 219(April), 118551. <https://doi.org/10.1016/j.watres.2022.118551>
7. \*Coomber, F. G., Falcone, E. A., Keene, E. L., Cárdenas-Hinojosa, G., Huerta-Patiño, R., & Rosso, M. (2022). Multi-regional comparison of scarring and pigmentation patterns in Cuvier's beaked whales. *Mammalian Biology*, (0123456789). <https://doi.org/10.1007/s42991-022-00226-6>
8. Liu, M., Lin, W., Lin, M., Caruso, F., Rosso, M., Zhang, P., Dong, L., Dai, L., Li, S. (2022). Sperm whales (*Physeter macrocephalus*) in the northern South China Sea: Evidence of a nursing ground? *Deep Sea Research Part I: Oceanographic Research Papers*, 184(April), 103767. <https://doi.org/10.1016/j.dsr.2022.103767>
9. David, L., Arcangeli, A., Tepsich, P., Di-Meglio, N., Roul, M., Campana, I., Gregoriotti, M., Moulins, A., Rosso, M., Crosti, R. (2022). Computing ship strikes and near miss events of fin whales along the main ferry routes in the Pelagos Sanctuary and adjacent west area, in summer. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 32(3), 442–456. <https://doi.org/10.1002/aqc.3781>
10. \*Galli, M., Tepsich, P., Bains, M., Panti, C., Rosso, M., Vafeiadou, A., Moulins, Fossi, M. C. (2022). Microplastic abundance and biodiversity richness overlap: Identification of sensitive areas in the Western Ionian Sea. *Marine Pollution Bulletin*, 177(March), 113550. <https://doi.org/10.1016/j.marpolbul.2022.113550>
11. \*Alves, F., Rosso, M., Li, S., and Nowacek, D., P. A sea of possibilities for marine megafauna. *Science*, 375(6579): 391-392. 1 2022. <https://www.science.org/doi/10.1126/science.abn6022>
12. Lanfredi, C., Arcangeli, A., David, L., Holcer, D., Rosso, M. & Natoli, A. 2021. *Grampus griseus* (Mediterranean subpopulation). The IUCN Red List of Threatened Species 2021: e.T16378423A190737150. <https://dx.doi.org/10.2305/IUCN.UK.2021-3.RLTS.T16378423A190737150.en>
13. Emma L. Carroll, Michael R. McGowen, Morgan L. McCarthy, Felix G. Marx, Natacha Aguilar, Merel L. Dalebout, Sascha Dreyer, Oscar E. Gaggiotti, Sabine S. Hansen, Anton van Helden, Aubrie B. Onoufriou, Robin W. Baird, C. Scott Baker, Simon Berrow, Danielle Cholewiak, Diane Claridge, Rochelle Constantine, Nicholas J. Davison, Catarina Eira, R. Ewan Fordyce, John Gatesy, G. J. Greg Hofmeyr, Vidal Martín, James G. Mead, Antonio A. Mignucci-Giannoni, Phillip A. Morin, Cristel Reyes, Emer Rogan, Massimiliano Rosso, Mónica A. Silva, Mark S. Springer, Debbie Steel and Morten Tange Olsen. 2021. Speciation in the deep: genomics and morphology reveal a new species of beaked whale *Mesoplodon eueu*. *Proc. R. Soc. B* 288:20211213. <https://doi.org/10.1098/rspb.2021.1213>
14. Francesca Grossi, Elise Lahaye, Aurélie Moulins, Anna Borroni, Massimiliano Rosso, Paola Tepsich (2021). Locating ship strike risk hotspots for fin whale (*Balaenoptera physalus*) and sperm whale (*Physeter macrocephalus*) along main shipping lanes in the North-Western Mediterranean Sea. *Ocean & Coastal Management*, 212:105820. <https://doi.org/10.1016/j.ocecoaman.2021.105820>.
15. Ham, G. S., Lahaye, E., Rosso, M., Moulins, A., Hines, E. & Tepsich, P. (2021). Predicting summer fin whale distribution in the Pelagos Sanctuary (north-western Mediterranean Sea) to identify dynamic whale–vessel collision risk areas. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 1– 21. <https://doi.org/10.1002/aqc.3614>
16. Correia AM, Sousa-Guedes D, Gil Á, Valente R, Rosso M, Sousa-Pinto I, Sillero N and Pierce GJ (2021) Predicting Cetacean Distributions in the Eastern North Atlantic to Support Marine Management. *Front. Mar. Sci.* 8:643569. doi: 10.3389/fmars.2021.643569
17. \*Songhai Li and Massimiliano Rosso (2021). Lack of knowledge threatens beaked whales. *Science* Vol. 371, Issue 6531, pp. 791. DOI: 10.1126/science.abg8922
18. \*Bertulli CG, Rasmussen MH, Rosso M (2021). Fission–fusion dynamics of a pelagic delphinid in the arctic: the white-beaked dolphin (*Lagenorhynchus albirostris*). *Integrative Zoology* 16, 512-26. DOI: 10.1111/1749-4877.12524



19. \*Karaa, S, Jerbi, H, Marouani, S and Rosso, M. (2021). First records of Cuvier's beaked whale (*Ziphius cavirostris*, G. Cuvier 1823) strandings along the Tunisian coast. *Mar Biodivers Rec* 14, 2 <https://doi.org/10.1186/s41200-020-00197-y>
20. \*Rosso M, Lin M, Caruso F et al. (2020). First live sighting of Deraniyagala's beaked whale (*Mesoplodon hotaula*) or ginkgo-toothed beaked whale (*Mesoplodon ginkgodens*) in the western Pacific (South China Sea) with preliminary data on coloration, natural markings and surfacing patterns. *Integrative Zoology* 16, 451–61. DOI: 10.1111/1749-4877.12507
21. Lin, M, Liu, M, Caruso, F, Rosso, M et al. (2020). A pioneering survey of deep-diving and off-shore cetaceans in the northern South China Sea. *Integrative Zoology* 1– 11. DOI: 10.1111/1749-4877.12508
22. \*Baini, M., Panti, C., Fossi, M.C. et al. First assessment of POPs and cytochrome P450 expression in Cuvier's beaked whales (*Ziphius cavirostris*) skin biopsies from the Mediterranean Sea. *Sci Rep* 10, 21891 (2020). <https://doi.org/10.1038/s41598-020-78962-3>
23. Tepsich P, Schettino I, Atzori F, Azzolin M, Campana I, Carosso L, Cominelli S, Crosti R, David L, Di-Méglio N, Frau F, Gregoriotti M, Mazzucato V, Monaco C, Moulins A, Paraboschi M, Pellegrino G, Rosso M, Roul M, Saintignan S, Arcangeli A. 2020. Trends in summer presence of fin whales in the Western Mediterranean Sea Region: new insights from a long-term monitoring program. *PeerJ* 8:e10544 <http://doi.org/10.7717/peerj.10544>
24. Tepsich P, Borroni A, Zorgno M, Rosso M and Moulins A (2020) Whale Watching in the Pelagos Sanctuary: Status and Quality Assessment. *Front. Mar. Sci.* 7:596848. doi: 10.3389/fmars.2020.596848
25. Correia AM, Gil Á, Valente RF, Rosso M, Sousa-Pinto I, Pierce GJ. Distribution of cetacean species at a large scale-Connecting continents with the Macaronesian archipelagos in the eastern North Atlantic. *Divers Distrib.* 2020;00:1–14. <https://doi.org/10.1111/ddi.13127>
26. Centelleghè C, Carraro L, Gonzalvo J, Rosso M, Esposti E, Gili C, et al. (2020) The use of Unmanned Aerial Vehicles (UAVs) to sample the blow microbiome of small cetaceans. *PLoS ONE* 15(7): e0235537. <https://doi.org/10.1371/journal.pone.0235537>
27. Songhai Li, Mingli Lin, Francesco Caruso, Lijun Dong, Wenzhi Lin, Massimiliano Rosso, Alessandro Bocconcelli (2020). Overfishing threatens cetaceans in the South China Sea. *Science* 368(6495):1074–1075. DOI: 10.1126/science.abc7557
28. Alves, F., Dromby, M., Baptista, V. et al. Ecophysiological traits of highly mobile large marine predators inferred from nucleic acid derived indices. *Sci Rep* 10, 4752 (2020). <https://doi.org/10.1038/s41598-020-61769-7>
29. \*Correia, A.M., Gandra, M., Liberal, M. et al. A dataset of cetacean occurrences in the Eastern North Atlantic. *Sci Data* 6, 177 (2019). <https://doi.org/10.1038/s41597-019-0187-2>
30. Correia, A.M. et al. Distribution and habitat modelling for short-beaked common dolphins (*Delphinus delphis*) in Eastern North Atlantic Ocean. *JMBA*. 99(6), 1443–1457 (2019). DOI: <https://doi.org/10.1017/S0025315419000249>
31. \*Francesco Caruso, Virginia Sciacca, Ignazio Parisi, Salvatore Viola, Giovanni de Vincenzi, Alessandro Bocconcelli, T. Aran Mooney, Laela Sayigh, Songhai Li, Francesco Filiciotto, Aurelie Moulins, Paola Tepsich, and Massimiliano Rosso. 2019. Acoustic recordings of rough-toothed dolphin (*Steno bredanensis*) offshore Eastern Sicily (Mediterranean Sea). *JASA* 146, EL286 (2019); <https://doi.org/10.1121/1.5126118>
32. Cañadas, N. Aguilar De Soto, M. Aissi, A. Arcangeli, M. Azzolin, A. B-Nagy, G. Bearzi, I. Campana, C. Chicote, C. Cotte, R. Crosti, L. David, A. Di Natale, C. Fortuna, A. Frantzis, P. Garcia, M. Gazo, R. Gutierrez-Xarxa, D. Holcer, S. Laran, G. Lauriano, T. Lewis, A. Moulins, B. Mussi, G. Notarbartolo Di Sciara, S. Panigada, X. Pastor, E. Politi, M. Pulcini, J.A. Raga, L. Rendell, M. Rosso, P. Tepsich, J. Tomás, M. Tringali, Th. Roger (2018). The challenge of habitat modelling for threatened low density species using heterogeneous data: The case of Cuvier's beaked whales in the Mediterranean, *Ecological Indicators*, Volume 85, February 2018, Pages 128-136, ISSN 1470-160X, <https://doi.org/10.1016/j.ecolind.2017.10.021>.
33. Morgado, C., Martins, A., Rosso, M., Moulins, A., and Tepsich, P. (2017). Fin Whale Presence and Distribution in the Pelagos Sanctuary: Temporal and Spatial Variability Along 2 Fixed-Line Transects Monitored in 2009–2013. *International Journal of Marine and Environmental Sciences*, 1(December): 1–14. 2017.
34. Azzellino, A., S. Airoidi, S. Gaspari, C. Lanfredi, A. Moulins, M. Podestà, M. Rosso, And P. Tepsich (2016). Chapter Seven- Risso's Dolphin, *Grampus griseus*, in the Western Ligurian Sea: Trends in Population Size and Habitat Use. *Advances in Marine Biology* 75: 205-232. DOI: 10.1016/bs.amb.2016.07.007
35. Podestà, M., A. Azzellino, A. Cañadas, A. Frantzis, A. Moulins, M. Rosso, P. Tepsich, And C. Lanfredi (2016). Chapter Four- Cuvier's Beaked Whale, *Ziphius cavirostris*, Distribution and Occurrence in the Mediterranean Sea: High-Use Areas and Conservation Threats. *Advances in Marine Biology* 75: 103-140. DOI: 10.1016/bs.amb.2016.08.003
36. \*Coomber F.G., Moulins A., Tepsich P. And M. Rosso (2016). Sexing free-ranging adult Cuvier's beaked whales (*Ziphius cavirostris*) using natural marking thresholds and pigmentation patterns. *Journal of Mammalogy* Mar 2016, gyw033; DOI: 10.1093/jmammal/gyw033
37. Coomber, F.G., D'incà, M., Rosso, M., Tepsich, P., Notarbartolo Di Sciara, G., Moulins, A. (2016). Description of the vessel traffic within the north Pelagos Sanctuary: Inputs for Marine Spatial Planning and management implications within an existing international Marine Protected Area. *Marine Policy* 69,102-116. <doi.org/10.1016/j.marpol.2016.04.013>
38. Wang X., Wu F., Turvey S.T., Rosso M., Zhao L. And Zhu Q. (2016). Seasonal group characteristics and occurrence patterns of Indo-Pacific humpback dolphins (*Sousa chinensis*) in Xiamen Bay, Fujian Province, China. *Journal of Mammalogy* Jan 2016, gyw002; DOI: 10.1093/jmammal/gyw002
39. Cominelli S., Moulins A., Rosso M., Tepsich P. 2016. Fin whale seasonal trends in the Pelagos Sanctuary, Mediterranean Sea. *Journal of Wildlife Management* 80(3):490-499. DOI: 10.1002/jwmg.1027.
40. \*Bertulli C., Rasmussens M.H., Rosso M. 2016. An assessment of the natural marking patterns used for photo-identification of common minke whales (*Balaenoptera acutorostrata*) and white-beaked dolphins (*Lagenorhynchus albirostris*) off Iceland. *JMBA* 96(4), 807–819. DOI: 10.1017/S0025315415000284.
41. Wang X., Wu F., Turvey S.T., Rosso M., Cuihua T., Ding X. And Q. Zhu. 2015. Social organization and distribution patterns inform conservation management of a threatened Indo-Pacific humpback dolphin population. *Journal of Mammalogy* 96:964–97. DOI:10.1093/jmammal/gyv097.

42. Campana, R. Crosti, D. Angeletti, L. Carosso, L. David, N. Di-Méglio, A. Moulins, M. Rosso, P. Tepsich, A. Arcangeli. 2015. Cetacean response to summer maritime traffic in the Western Mediterranean Sea. *Marine Environmental Research*, 109:1-8. doi:10.1016/j.marenvres.2015.05.009.
43. Correia, A.M., Tepsich, P., Rosso, M., Caldeira, R., Sousa Pinto, I., 2015. Cetacean occurrence and spatial distribution: habitat modelling for offshore waters in the Portuguese EEZ (NE Atlantic). *Journal of Marine Systems*, 143:73-85.
44. Aissi M, Arcangeli A, Crosti R, Daly Yahia MN, Loussaief B, Moulins A, Pellegrino G, Rosso M, Tringali LM, Tepsich P, 2015. *Russian Journal of Marine Biology*, 41(5)343-350.
45. Tepsich, P., Rosso, M., Halpin, P.N., Moulins, A., 2014. Habitat preferences of two deep-diving cetacean species in the northern Ligurian Sea. *Mar. Ecol. Prog. Ser.* (508:247-260).
46. Rosso M., Ballardini M., Moulins A., Würtz M., 2011. Natural markings of Cuvier's beaked whale *Ziphius cavirostris* in the Mediterranean Sea. *African Journal of Marine Science*, 33(1)45-57.
47. Gnone G., Rosso M. Et Al., 2011. Distribution, abundance and movements of the bottlenose dolphin (*Tursiops truncatus*) in the Pelagos Sanctuary MPA (North-West Mediterranean Sea). *Aquatic Conservation: Marine and Freshwater Ecosystems*, 21: 372-388. doi: 10.1002/aqc.1191.
48. Rosso M., Moulins A. And Würtz M., 2008. Colour patterns and pigmentation variability on striped dolphin *Stenella coeruleoalba* (Meyen, 1833) in North-Western Mediterranean sea. *JMBA*, 88(6):1211-1219.
49. Moulins A., Rosso M., Ballardini M., And Würtz M., 2008. Partition of the Pelagos Sanctuary (north-western Mediterranean Sea) into hotspots and coldspots for cetacean sightings. *JMBA*, 88(6):1273-1281.
50. Moulins A., Rosso M., Nani B., And Würtz M., 2007. Aspects of distribution of Cuvier's beaked whale (*Ziphius cavirostris*) in relation to topographic features in the Pelagos Sanctuary northwestern Mediterranean sea). *JMBA*, 87(1):177-186.

Savona 22/01/2023

Autorizzo il trattamento dei dati personali contenuti nel mio curriculum vitae in base all'art. 13 del D. Lgs. 196/2003 e all'art. 13 GDPR 679/16.

Massimiliano Rosso