Anna Borroni

Ph.D. Student

💼 Work History

2019-04 - 2020-10

Research Scholar

University of Genova - Department of Informatics, Bioengineering, Robotics, and Systems Engineering, Genova, Italy

- Scholarship to conduct research on "Assessment of environmental vulnerability and risk scenarios in the Pelagos Sanctuary area as part of the SICOMAR plus project".
- Assistance in organization of research campaigns.
- Collection and processing of distance sampling, behavioral and photoID data on cetacean populations.
- Drafting of scientific reports.

2018-11 - 2019-03

Collaborator

CIMA Research Foundation, Savona, Italy

- Research and support to monitoring and data collection on cetacean populations in the Ligurian Sea on board of ferries operating between Italy and Corsica, for the definition of with high-risk areas for navigation accidents as part of the project SICOMAR plus.

2018-10 - 2018-11

Scientific Entertainer

Associazione Festival della Scienza, Genova, Italy

- Scientific entertainer during the event "Festival della scienza", in the laboratory of ARPAL "Go by sea reading the changes of the wind", directed to children between 6 and 13 years.

🎓 Education

2020-11 - Current

Ph.D.: Computer Science And Systems Engineering

University of Genova - Genova

- Configuration of Argos satellite transmitting tags.
- Processing and analysis of diving behavior and positioning data collected by satellite tags deployed on Cuvier's beaked whales.
- Use of devices to collect satellite tag data, including the Argos Platform direction finder CLS goniometer RXG-234 and the stationary, unattended ground-based listening stations

Wildlife Computers Motes

- Processing and analysis of Automatic Identification System (AIS) data.

| 2016-09 - 2019-02 | **Master of Science: Marine Biology** |

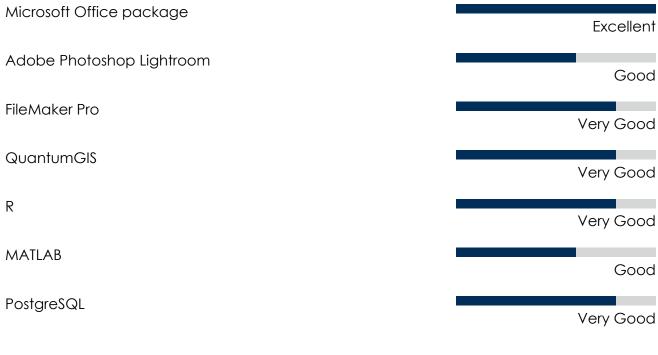Marche Polytechnic University - Ancona

Dissertation: "Natural markings and human-related injuries on free-ranging sperm whales (*Physeter macrocephalus*) in the central Mediterranean Sea"

| 2011-10 - 2016-12 | **Bachelor of Science: Biology** |

University of Milan - Milano

Principal courses: animal and plant biology, biochemistry, animal and plant physiology, genetics, molecular biology, ecology.

Software

Microsoft Office package	Excellent
Adobe Photoshop Lightroom	Good
FileMaker Pro	Very Good
QuantumGIS	Very Good
R	Very Good
MATLAB	Good
PostgreSQL	Very Good

Languages

| English | Very Good |

Certifications

2009-03	Preliminary English Test
2012-07	CMAS Four Star Diver
2014-09	1 Star Free Diver
2020-03	Online 'Beginner's Guide to R

2021-02	MATLAB Onramp
2021-06	Machine Learning: A Computational Intelligence Approach
2021-09	Environmental acoustics: bioacoustics and ecoacustics

Training program

- 2017/08 - 2017/09 and 2018/04 - 2018/10: joining the CETASMUS program, developed by CIMA Research Foundation: training on methodologies and techniques for cetacean monitoring. Data collection at sea, on distribution, abundance and behavior of cetaceans in the Ligurian Sea. Processing and analysis of photo-ID and visual survey data by using different software including R,Quantum GIS, PostgreSQL, File Maker Pro.

Research campaign

- "Deep-Diving Cetacean Survey in the South China Sea 2019" with Marine Mammal and Marine Bioacoustics Laboratory of the Institute of Deep-sea Science and Engineering, Chinese Academy of Sciences and CIMA Research Foundation
- "Plastic Buster MPAs" with University of Siena and CIMA Research Foundation
- "Ziphius D-tag" Project con Duke University, S.Andrews University and CIMA Research Foundation
- "Operazione SISO 4" with Sea Shepherd,CIMA Research Foundation, Stazione zoologica Anton Dohrn, Woods Hole Oceanographic Institution (WHOI) and eConscience - Art of Soundscape

Conference participation

- World Marine Mammal Conference (WMMC'19) Barcelona 2019, present as co-author of the Speed Talk "Locating ship strike risk hotspots for fin whale (*Balaenoptera physalus*) and sperm whale (*Physeter catodon*) along main shipping lanes in the North-western Mediterranean Sea"

Publications

- Lin, M., Liu, M., Caruso, F., Rosso, M., Tang, X., Dong, L., Lin, W., Borroni, A., Bocconcelli, A., Dai, L., & Songhai, L. I. (2020). A pioneering survey of deep-diving and off-shore cetaceans in the northern South China Sea. Integrative Zoology 00, 1-11.
- Rosso, M., Lin, M., Caruso, F., Liu, M., Dong, L., Borroni, A., Lin, W., Tang, X., Bocconcelli, A., & Songhai, L. I. (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, 00, 1-11.
- Tepsich, P., Borroni, A., Zorgno, M., Rosso, M., Moulins, A., & Reed, J. T. (2020). Whale Watching in the Pelagos Sanctuary : Status and Quality Assessment. Front. Mar. Sci.

7:596848.

- Grossi, F., Lahaye, E., Moulins, A., Borroni, A., Rosso, M., & Tepsich, P. (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 and Coastal Management, 212.

10/05/2022