



GIORGIA ZOFFOLI

03/03/1997

Marine Biologist



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Technical Skills

- Extensive experience in laboratory techniques for the isolation, cultivation, maintenance, and monitoring of microalgal cultures.
- Experienced in the use of inverted light microscopy for the identification and counting of phytoplankton species.
- Hands-on expertise in molecular analysis methods for the identification and quantification of phytoplankton species, including PCR, real-time quantitative PCR and chip-based digital PCR.
- Skilled in chemical analysis techniques for the detection of specific compounds, particularly through HPLC-FLD and LC-MS/MS instrumentation.
- Proficient in statistical analysis softwares for the elaboration of biotic and abiotic data (R, Past, Primer), as well as in GIS tools for spatial data processing and mapping (QGIS).
- Competent in the Microsoft Office Suite.

Additional Skills

Strong communication, organisational, and problem-solving skills, developed through team-based projects and research activities. Proven ability to work independently and collaboratively in interdisciplinary environments, with a proactive attitude and solid time-management capabilities.

Languages

Mother tongue: **Italian**

Other languages:

- **English** B2 (Independent User)
- **Spanish** B2 (Independent User)
- **German** A2 (Basic User)

Education

Master's Degree in Marine Biology

Alma Mater Studiorum – University of Bologna, School of Science (2019–2022)

Final grade: 110/110 cum laude

Thesis: Biosynthesis of polyhydroxyalkanoates by Chlorophyta

Bachelor's Degree in Environmental Sciences

Alma Mater Studiorum – University of Bologna, School of Science (2016–2019)

Final grade: 107/110

Thesis: Yessotoxins along the Emilia-Romagna region coast: monitoring and characterisation of toxic phytoplankton

High School Diploma - Language Studies

Liceo Linguistico I. Alpi, Cesena (2011–2016)

Final grade: 100/100

Languages studied: English, Spanish, German

Scientific and Technical Experience

Postdoc

University of Bologna (BiGeA Department)

(November 2025 – present)

- Investigation of nutrient impacts on dinoflagellate physiology in a climate change context.

PhD in Earth, Life and Environmental Sciences

University of Bologna (BiGeA Department) and Italian National Reference Laboratory for Marine Biotoxins (FCRM)

(November 2022 – October 2025)

- Definition and application of innovative tools for monitoring toxic phytoplankton in Italian bivalve shellfish farming areas
- 6-month research stay at ATU (Ireland), focused on developing novel molecular tools for early HAB detection

Research Fellowship in Entomological Survey (*Aedes albopictus* monitoring)

Regional Environmental Protection Agency of Emilia-Romagna (ARPAE)

(June 2022 – October 2022)

- Detection of *Aedes albopictus* eggs using stereomicroscopy
- Acceptance and reporting of samples

Internship - Algal Biology and Environmental Chemistry Laboratories

University of Bologna (Ravenna Technopole)

(March 2021 – February 2022)

- Microalgal cultivation and biomass collection for biochemical characterisation
- Identification and extraction of biopolymers

Internship - Chemistry and Biotoxicology Laboratories

Italian National Reference Laboratory for Marine Biotoxins (FCRM)

(February 2019)

- Chemical analyses for biotoxin detection in shellfish samples
- Contribution to official monitoring and research activities

Conference contributions

Riunione scientifica annuale del Gruppo di Lavoro per l'Algologia della Società Botanica Italiana (S.B.I.)

November 11-12, 2022 Amendolara (CS); October 27-28, 2023 Napoli (NA); November 15-16, 2024 Ferrara (FE); November 14-15, 2025 Roma (RM)

Oral communications:

"Production of the biopolymer polyhydroxybutyrate (PHB) from the Chlorophyceae *Desmodesmus communis*", "Paralytic shellfish poisoning (PSP) toxin profiles of *Alexandrium minutum* strains isolated from different Italian marine regions", "Detection and quantification of *Alexandrium minutum* in Sardinian mussel farms using real-time quantitative PCR and digital PCR"

Poster presentation:

"Real-time qPCR monitoring of *Alexandrium* spp. and Paralytic Shellfish Toxin genes (*sxtA1*, *sxtA4*) in Sardinian mussel farms"

International Conference on Harmful Algae

November 5-10, 2023 (ICHA 23) Hiroshima, Japan; October 19-24, 2025 (ICHA25) Punta Arenas, Chile

Poster presentation with ignite talk:

"Biotoxins profile in mussels of the northern Adriatic Sea in the last decade (2012-2022): major contamination events and correlation with toxic phytoplankton"

Oral communication:

"Assessment of novel molecular tools for the early detection of *Alexandrium minutum* in Italian coastal waters (Mediterranean Sea)"

"Blue Biotechnologies: ALGOLAB researchers (BiGeA and CIRSA, UNIBO) meet WASEDA University" seminar

March 21, 2025 Ravenna (RA)

Oral communication:

"Cutting-edge strategies for Harmful Algal Blooms (HABs) monitoring in Italian shellfish farms: the *Alexandrium minutum* case study"

Scientific Production

- Laura Pezzolesi, Chiara Samorì, Giorgia Zoffoli, Giulia Xamin, Mara Simonazzi, Rossella Pistocchi. **Semi-continuous production of polyhydroxybutyrate (PHB) in the Chlorophyta *Desmodesmus communis*.** Algal Research, Volume 74, 2023, 103196, ISSN 2211-9264. <https://doi.org/10.1016/j.algal.2023.103196>
- Giorgia Zoffoli, Franca Guerrini, Laura Pezzolesi, Monica Cangini, Sonia Dall'Ara, Silvana Vanucci, Rossella Pistocchi. **Biotoxins profile in mussels of the northern Adriatic Sea in the last decade (2012-2022): major contamination events and correlation with toxic phytoplankton.** Proceedings 20th International Conference on Harmful Algae, 2023. <https://doi.org/10.15027/0002041283>
- Giorgia Zoffoli, Laura Pezzolesi, Mara Simonazzi, Franca Guerrini, Silvana Vanucci, Anna Calfapietra, Sonia Dall'Ara, Irene Servadei, Rossella Pistocchi. **A decade-long study on harmful dinoflagellate blooms and biotoxin contamination in mussels from the north-western Adriatic Sea (Mediterranean Sea).** Harmful Algae, Volume 146, 2025, 102870, ISSN 1568-9883. <https://doi.org/10.1016/j.hal.2025.102870>