

Curriculum vitae et studiorum

Barone Giulio

PhD in Marine Biology and Ecology

Scientific Publications and Technical Reports

Barone G, Bargione G, Piccinetti C, Prioli G, Vasapollo C, Virgili M, Lucchetti A **(2021)** Azione di monitoraggio e studio volto alla valutazione della risorsa vongole (*Chamelea gallina*) nel tratto antistante la Regione Marche. **Final Technical Report**.

Varrella S, **Barone G**, Tangherlini M, Rastelli E, Dell'Anno A, Corinaldesi C **(2021)** Diversity, Ecological Role, and Biotechnological Potential of Antarctic Marine Fungi. **Journal of Fungi**.

Jones GP, **Barone G**, Sambrook K and Bonin MC **(2020)** Isolation promotes abundance and species richness of fishes recruiting to coral reef patches. **Marine Biology**.

Beolchini F, Becci A, **Barone G**, Amato A, Hekeu M, Danovaro R and Dell'Anno A **(2020)** High fungal- mediated leaching efficiency of valuable metals from deep-sea polymetallic nodules. **Environmental Technology & Innovation**.

Barone G, Varrella S, Tangherlini M, Rastelli E, Dell'Anno A, Danovaro R and Corinaldesi C **(2019)** Marine Fungi: Biotechnological Perspectives from Deep- Hypersaline Anoxic Basins. **Diversity**.

Barone G, Rastelli E, Corinaldesi C, Tangherlini M, Danovaro R and Dell'Anno A **(2018)**

Benthic deep- sea fungi in submarine canyons of the Mediterranean Sea. **Progress in Oceanography**.

Corinaldesi C, **Barone G**, Marcellini F, Dell'Anno A and Danovaro R **(2017)** Marine Microbial-Derived Molecules and Their Potential Use in Cosmeceutical and Cosmetic Products. **Marine Drugs**.

Danovaro R, **Barone G**, Carugati G, Lo Martire M, Dell'Anno A and Corinaldesi C **(2017)** Implementing the Monitoring and Restoration of Marine Ecosystems Impacted by Offshore Platform. **Offshore Mediterranean Conference**.

Education

PhD in Marine Biology and Ecology (summa cum laude) | 2019

Università Politecnica delle Marche, Ancona (Italy).

I studied the ecology and diversity of benthic deep-sea fungi applying molecular techniques, and bioinformatic and statistical tools.

Supervisors: Prof. A. Dell'Anno, Prof. C. Corinaldesi and Prof. R. Danovaro.

Dissertation: Ecology and diversity of benthic deep-sea fungi.

Master of Science in Marine Biology and Ecology | 2014

James Cook University, Townsville (Australia).

I focused my studies on population dynamics models, conservation biology, sampling techniques and experimental design.

Supervisors: Prof. G.P. Jones and Dr. M.C. Bonin.

Literature review: Habitat fragmentation: marine fish populations and communities' responses to changes in the spatial configuration of habitats.

Minor project: Habitat isolation effects on recruitment and predation in coral reefs fish.

Bachelor of Science in Biological Sciences | 2012

Università di Bologna, Bologna (Italy).

I graduated in Biological Sciences with a Major in Marine Biology and Ecology.

Supervisors: Prof. M. Abbiati and Dr. M. Ponti.

Dissertation: Use of fluorescent particles to study the processes of bioturbation of the sediments.

Professional development

Multivariate Analysis in Ecology | 2019

Primer-e

Workshop on multivariate analyses in ecology

Held by Dr. P.J. Somerfield and Prof. M.J. Anderson.

Tools for statistical and spatial analyses of environmental and biological data | 2016

Università Politecnica delle Marche, Ancona (Italy).

Introduction to R and GIS for the analysis of biological and environmental data.

Held by Dr. M. Ponti e Dr. M. Marconi.

Work and Scientific Experience

Research Fellow | October 2020 – today

National Research Council, Institute of Marine and Biotechnological Resources, Ancona (Italy).

I am responsible for experimental design, data collection, and spatial and statistical analyses. I mainly work on the population ecology of *Chamelea gallina*, but I am also involved in other projects concerning gear selectivity and by-catch reduction.

Environmental consultant | July 2020 – September 2020

Ecotech Systems, Ancona (Italy).

Responsible for onboard ROV video analysis for the characterization of benthic fauna and environmental impact evaluation.

Research Fellow | January 2019 – January 2020

Stazione Zoologica Anton Dohrn, Napoli (Italy).

I was responsible for the characterization of the ecology of microbial benthic communities of polluted coastal sediments. Moreover, I was responsible for the experimental design to investigate the potential biotechnological application of these microbes for bioremediation purposes. I was also involved in restoration activities of impacted coastal habitats.

Environmental consultant | September 2019 – December 2019

Ecoreach, Ancona (Italy).

Responsible for the environmental characterization and evaluation of the impact of Oil and Gas structure installation.

Data analyst | October 2018 – November 2018

Ecoreach, Ancona (Italy).

Responsible for the data acquisition and processing for the analysis of spatial patterns of habitat distribution and anthropogenic disturbance in the Adriatic Sea.

Research assistant | November 2015 – October 2018

Università Politecnica delle Marche, Ancona (Italy).

I was responsible for studying the diversity and ecology of benthic deep-sea fungi through molecular, bioinformatics and statistical tools. Alongside, I was involved in several other activities concerning offshore O&G structures, seagrass restoration, onboard biological and environmental samples collection during to national and international oceanographic and monitoring of benthic habitats and communities along the coast of Ancona.

Teaching assistant, Ecology | November 2016 – October 2017

Università Politecnica delle Marche, Ancona (Italy).

I was responsible for the organization of laboratory practicals, study sessions for undergraduate students, and exam preparation and evaluation.

Postgraduate student | January 2013 – August 2014

James Cook University, Townsville, (Queensland, Australia)

As part of my MSc, I conducted an extensive literature review on habitat fragmentation effects on natural landscapes, designed and carried out an in-field study to understand the effects of spatial isolation on recruitment patterns of coral reef fish (Kavieng, Papua New Guinea), and, as volunteer, I participated several projects mainly as scientific diver for the acquisition of fish and coral data at Orpheus Island Research Station (Queensland, Australia).

Conferences, workshops and outreach

XV Conference of the Ecological Society of Italy (SIeE) | 2019

Ostana (Italy)

Oral Presentation “Benthic deep-sea fungi in submarine canyons of the Mediterranean Sea”

NERC “Design for Decommissioning” Workshop | 2018

Edinburgh (Scotland), 2018

Workshop for the development of alternative methods for the installation and decommission of offshore man-made structures.

Sharper night | 2016-2018

Ancona (Italy)

Science divulgation event held by researchers to engage and share scientific projects with local communities.

INSITE conference “Manmade Structures in the North Sea - Building the evidence Base” |

2017 Aberdeen (Scotland)

Conference on the scientific evidence about the effects of offshore man-made structures on marine life.

INSITE Science Day | 2016

London (England)

Conference on the scientific evidence about the effects of offshore man-made structures on marine life.

Certifications

BOSIET-OPITO | 2019

Basic Offshore Safety Induction & Emergency Training.

STCW | 2018

International Convention on Standards of Training, Certification and Watchkeeping for Seafarers.

Antarctic Research qualification (PNRA) | 2016 ICCAT | 2016

Observer, Swordfish and Blue Fin Tuna Fisheries Observer.

PADI | 2014

Rescue diver licence.

CMAS * | 2014**

Scuba diver with NITROX, In-Current and in-blue dive, Dry suit, Night and low visibility dive, Orienteering and underwater navigation qualifications.