



Giorgio Bavestrello

Professore ordinario

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Istruzione e formazione

1982

Bachelor in Biological Sciences

110/100 e lode

University of Genova - Genova - IT

1990

PhD in Marine Sciences

University of Genova - Genova - IT

Esperienza accademica

2011 - IN CORSO

Professore Ordinario di Zoologia

Università di Genova - Genova - IT

Cattedra di Zoologia ed Etologia Coordinamento CCS in Scienze Naturali ed Ambientali Coordinamento CCS di Biologia

2001 - 2011

Professore Ordinario di Zoologia

Università Politecnica delle Marche - Ancona - IT

Cattedra di Zoologia e Etologia Coordinamento Dottorato in Scienze del Mare

1998 - 2001

Professore associato

Università Politecnica delle Marche - Ancona - IT

Professore Associato di Zoologia ed Etologia

Esperienza professionale

Nessuna

nessuno

Competenze linguistiche

Italian

Madrelingua

English

Buono

French

Elementare

Spanish

Elementare

Attività didattica

From 2017 to present– Co-ordinator of the courses of ***Biology, Molecular Biology, Marine Biology and Ecology*** at the University of Genova

From 2013 to 2017– Co-ordinator of the courses of ***Environmental and Natural Sciences, Marine Sciences*** and ***Sciences of Natural Systems*** at the University of Genova

From 2011 to present - Chair of ***Zoology and Animal Behaviour*** at the University of Genova

From 1998 to 2011 – Chair of ***Zoology*** and ***Animal Behaviour*** at the Polytechnical university of Marche

From 2002 to 2009 – Director of the ***PhD School of Marine Biology and Ecology*** of Polytechnical university of Marche

From 2001 to 2006 – Director of the ***Master School in Tropical Biodiversity and Bioactive compounds*** in collaboration among the University of Genoa, the Polytechnical University of Marche and the Sam Ratulangi University of Manado.

Attività didattica e di ricerca nell'alta formazione

Supervisione di dottorandi, specializzandi, assegnisti

Giorgio Bavestrello has graduated eight PhD students and is currently advising two more. Two students acquired a position of scientific researchers (Stefania Puce at the Polytechnical University of Marche, Marzia Bo at the University of Genoa), one (Michela Martinelli) is research at the CNR (Ancona). Finally Dr. Masteria Yunovilsa Putra is now Postdoc students at the Seoul National University. Giorgio Bavestrello also trained tens graduate students now licentiates in Biology both at the Polytechnical University of Marche and University of Genoa.

Partecipazione al collegio dei docenti nell'ambito di dottorati di ricerca accreditati dal Ministero

PhD School of Environmental Sciences (Marine Sciences) University of Genoa

Interessi di ricerca

- Taxonomy, morphology and ecology of sponges and cnidarians
- Ecology of deep hard substrata through ROV imaging
- Mineral/organism interactions
- Ecology of coral reefs
- Ecology of Antarctic benthos
- Conservation of marine ecosystems

Participation to several research campaigns in Mediterranean Sea and in South-East Asia, mainly Indonesia, Vietnam, Japan

After the bachelor in Biological Sciences obtained in 1982 at the University of Genova and the PhD in Marine Sciences obtained in the same university in 1990, he has dedicated his research activity to the taxonomy, the biology and the ecology of marine benthic organisms of hard bottoms, mainly sponges and cnidarians in the Mediterranean Sea, Indopacific Ocean (particularly Indonesia, Vietnam and Japan) and Antarctica. Called as associate professor (1998) and full professor of Zoology (2001) at the Polytechnical University of Marche, he has directed the laboratory of Marine Zoology at the Department of Sciences of the Life and of the Environment.

In the taxonomic studies of Sponges and Cnidarians he has described numerous new taxa (species and genera) using both traditional and genetic taxonomic tools. Relevant, at this subject, is the study of the variability of morphological taxonomic characters according to gradients of ecological factors. In some critic groups as stylasterid corals he has applied new method of morphological description as the computerised X-ray microtomography.

Thank to an intense diving activity he has studied, directly in the field, the ecology of hard bottom benthic assemblages. He was among the first that focused the attention on the mass mortalities of sea fans and sponges in the Mediterranean monitoring all the recorded episodes occurring in the Tyrrhenian Sea in the last two decades. Relevant are the studies on the ecology and biology of bioeroding organisms, mainly sponges. Particularly, the morphological study of the scars produced in the calcareous substrata have demonstrated the specificity of these signs of erosions producing evidence that have paleontological relevance.

He was particularly interested by the mineral/organism interactions regarding both the biomineralisation in skeletal structures and the selection and incorporation of mineral particles of environmental origin. The use of foreign bodies in the sponge skeleton is, until now almost unexplored. The researches of Giorgio Bavestrello have demonstrated the selectivity in the choice and utilisation. Particularly relevant is the finding that a sponge species (*Chondrosia reniformis*) is the only animal able to dissolve crystalline quartz. Also the researches of the author regarding the spicule production provided important finding. The more relevant is the finding that the siliceous sponge spicules act as optical fibres canalising the light inside the sponge tissues. From the ecological point of view the study of the mineral/organism interactions (Biomineralogy) are a source of new evidences clarifying un-explicated aspects of benthos distribution.

Thank to a long collaboration with the Sam Ratulangi University of Manado (North Sulawesi, Indonesia) Giorgio Bavestrello had the possibility to built a small research centre on the small coralline island of Sealaden (Bunaken Marine Park, North Sulawesi, Indonesia). This site was particularly suitable for a series of studies about the ecology of coral reefs. These researches were mainly focused on the role of symbiotic relationships in the production of increasing levels of biodiversity. Particularly relevant was the record of zooxanthellae in black corals, a group traditionally considered not involved in autotrophic symbiosis. Moreover he was the coordinator of the

italo-indonesian expedition for the evaluation of the effects of the tsunamis event of December 2004 on coral reefs. During this expedition, that has studied, the lands most close to the earthquake epicentre, was studied a portion of reef uplifted 2 m upon the sea level.

In the last ten years a major part of the research activity of Giorgio Bavestrello was related to the established relationship with a group of researchers of ISPRA allowing the conduction of a long series of ROV campaign all around the Tyrrhenian Sea. Thank to these researchers it was put in evidence the importance of deep coral communities characterised by sea fans and black corals. During these researchers the first ROV study of a Mediterranean Seamount.

About these topics Giorgio Bavestrello had published more than 350 scientific papers.

He has coordinated several projects about sponge and cnidarian biology, some of them in

collaboration with international scientific structures (e.g. Sam Ratulangi University Manado, Indonesia; Andalas University Padang, Indonesia; Hai Phong Institute of Oceanography Viet Nam; Kochi University, Japan; Risho University Tokyo, Japan).

His publications appeared in journals such as Nature, PNAS, Plos One, Marine Ecology Prog Ser.

Biological Journal of the Linnean Society, Zoological Journal of the Linnean Society, Ecology Letters, Zoomorphology, etc.

He is Assistant Editor of the Italian Journal of Zoology. He has also reviewed articles for several international journals.

He has directed the PhD course of Marine Biology of the Polytechnical University of Marche and the Master Course of Tropical Biodiversity and Bioactive compounds in collaboration among the University of Genoa, the Polytechnical University of Marche and the Sam Ratulangi University of Manado.

Giorgio Bavestrello has attended many international congresses and symposia, giving numerous talks. Furthermore, he has been invited to give conferences in the Eijkman Institute for Molecular Biology Jakarta, Hasanuddin University of Makassar, Andalas University of Padang.