



# Giorgio Bavestrello

Full professor

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## *Education and training*

1982

### **Graduated with honors in Biological Sciences**

Il genere Eudendrium (Cnidaria Hydrozoa) sul promontorio di Portofino -  
110/110 e lode

University of Genoa - Genova - IT

1990

### **PhD in Marine Sciences**

University of Genova - Genova - IT

## *Academic experience*

2011 - ONGOING

### **Full Professor in Zoology**

University of Genoa - Genova - IT

Coordinamento CCS Biologia Coordinamento CCS Scienze Ambientali e  
Naturali Giunta di Dipartimento Consiglio di Scuola

2001 - 2011

### **Full Professor in Zoology**

Polytechnical University of Marche - Ancona - IT

Coordinatore Dottorato Scienze del Mare

1998 - 2001

### **Associate Professor**

Polytechnical University of Marche - Ancona

## *Work experience*

### **Nothing**

Nothing

## *Language skills*

### **Italian**

Mother tongue

### **English**

Independent

### **French**

Basic

### **Spanish**

Basic

## ***Teaching activity***

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 Genova, the Polytechnical University of Marche and the Sam Ratulangi University of Manado.

Giorgio Bavestrello has graduated six 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 Genova), one (Michela Martinelli) is research at the CNR (Ancona). Finally Dr. Masteria Yunovilsa Putra is now Postdoc students at the Seoul National

## ***Postgraduate research and teaching activity***

### **Supervision of PhD students, residents and post-doctoral fellows**

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 Genova), one (Michela Martinelli) is research at the CNR (Ancona). Finally Dr. Masteria Yunovilsa Putra is now Postdoc students at the Seoul National University.

### **PhD committees membership**

Phd in Environmental Sciences (Marine Sciences) at the University of Genova

## ***Research interests***

The research topics of Giorgio Bavestrello are:

1. Taxonomy, morphology and ecology of sponges and cnidarians
2. Ecology of deep benthic communities through ROV imaging
3. Mineral/organism interactions
4. Ecology of coral reefs
5. Ecology of Antarctic benthos

## 6. Conservation of marine ecosystems

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 critical 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.

## ***Grants***

1999 - 2000

### **Interazioni ecologiche e biochimiche tra biosistemi acquatici e substrati naturali (Coordinatore scientifico Prof. Cattaneo-Vietti R.)**

Italian Ministry for Scientific Research MIUR - IT  
Participant

2003 - 2004

### **Effetti a lungo termine del riscaldamento globale sulla composizione delle comunità bentoniche del Mediterraneo**

Italian Ministry for Scientific Research MIUR - IT  
Principal investigator

2009 - 2010

### **Tyrrhenian Seamounts ecosystems an Integrated Study (TySEc)**

Italian Ministry for Scientific Research MIUR (PRIN 2007) - IT  
120000 - Principal investigator

2013 - 2016

### **Biocostruzioni costiere struttura funzione e gestione**

**(Coordinatore scientifico Prof. Boero F.)**

Italian Ministry for Scientific Research MIUR (PRIN 2007) - IT  
Participant

**2001 - 2002**

**FIRB 2001 Biodiversità e organizzazione delle comunità in  
differenti contesti ambientali**

Italian Ministry for Scientific Research MIUR - IT  
Participant

**2001 - 2003**

**Master in Conoscenza e gestione della biodiversità delle  
scogliere coralline indonesiane INTERLINK 2001-2003**

Italian Ministry for Foreign Affaires - IT  
Principal investigator

**2004 - 2006**

**Conoscenza e gestione della biodiversità delle barriere  
coralline indonesiane INTERLINK 2004-2006**

Italian Ministry for Foreign Affaires - IT  
Participant

**2004**

**Progetto MAE 'Grande Rilevanza' tra Italia e Indonesia  
2004 'Biodiversità e sue variazioni stagionali nelle  
scogliere coralline indonesiane'**

Italian Ministry for foreign affaires - IT  
Principal investigator

**2005**

**Progetto MAE 'Grande Rilevanza' tra Italia e Indonesia  
2005 'Biodiversità e sue variazioni stagionali nelle  
scogliere coralline indonesiane'**

Italian Ministry for foreign affaires - IT  
Principal investigator

**2006**

**Progetto MAE 'Grande Rilevanza' tra Italia e Indonesia  
2006 'Biodiversità e sue variazioni stagionali nelle  
scogliere coralline indonesiane'**

Italian Ministry for foreign Affaires - IT  
Principal investigator

**2015 - 2018**

**SIR BIOMOUNT 2015-2018. Biodiversity patterns of the  
Tyrrhenian Seamounts. RBSI14HC90.**

Italian Ministry for Scientific Research MIUR - IT

268301 - Participant

2014 - 2015

**ENPI-EU-ECOSAFIMED 2014-2015 (204680.8 euros).**

**Towards Ecosystem Conservation and Sustainable Artisanal Fisheries in the Mediterranean basin.**

EU

Participant

### ***Editorial activity***

He is Editor of the European Journal of Zoology and Plos One He has also reviewed articles for several international journals.

### ***Assigments abroad***

Nothing

### ***Other professional activities***

Nothing