

*Curriculum vitae del candidato Roberto Danovaro*

Presentato dal socio *Francesca Zarri*

Settore ERC primario: *LS 08 / PE10*

ERC secondario *LS 08\_8 / PE10\_8*

**PERSONAL DETAILS**

Family name, First name: **Danovaro Roberto**

Birthdate: Genova, 22/02/1966

Researcher unique identifier(s):

ORCID: 0000-0002-9025-9395

Research ID: M-9018-2014

URL for web site: [https://it.wikipedia.org/wiki/Roberto\\_Danovaro](https://it.wikipedia.org/wiki/Roberto_Danovaro)

• **Education and key qualifications**

1993 - PhD in Marine Environmental Sciences at the Department of Biology University of Pisa (joint PhD activity at the University of Ghent, Belgium).

1988 - Master Degree - Biology, University of Genoa

• **Current position(s)**

2001 - Present: Full Professor Ecology and Environmental Sustainability at the Polytechnic University of Marche, Italy

• **Previous position(s)**

2018-2022: President at the Stazione Zoologica Anton Dohrn, Naples, Italy (II Mandate)

2013-2017: President at the Stazione Zoologica Anton Dohrn, Naples, Italy

2011-2014: Director of the Department of Life & Environmental Sciences - Polytechnic University of Marche

2010-2013: Pro-rector (Delegated to Research) at the Polytechnic University of Marche

2004-2010: Director of the Department of Marine Sciences - Polytechnic University of Marche

2003-2006: President of the European Federation of Marine Science and Technology Societies (EFMS)

2010-2013: Professor of Environmental Sustainability and Ecotechnologies

2007-2012: Professor in Eco-technologies at the Course of Environmental Sustainability (University of Ancona) at the Polytechnic University of Marche

2004-2006: President of the Master Degree in “Environmental Bioremediation and Biotechnologies”

1998-2001: Professor Fundamentals of Analysis of Ecological Systems – University of Bari

## **RESEARCH ACHIEVEMENTS AND PEER RECOGNITION**

### **Research achievements**

#### ***Publications***

- Danovaro R. et alii (2024) Making eco-sustainable floating offshore wind farms: Siting, mitigations, and compensations. **Renewable and Sustainable Energy Reviews** 197, 114386
- Aguzzi J, T Laurenz, S Flögel, NJ Robinson, ... Danovaro R. (2024) New Technologies for Monitoring and Upscaling Marine Ecosystem Restoration in Deep-Sea Environments. **Engineering**, in press
- Levin LA, Alfaro-Lucas JM, Colaço A, Cordes EE, Craik N, Danovaro R. (2023) Deep-sea impacts of climate interventions. **Science** 379 (6636), 978-981
- Menini E, Calado H, Danovaro R, Manea E, Halpin PN. (2023) Towards a global strategy for the conservation of deep-sea active hydrothermal vents. **Nature (npj) Ocean Sustainability** 2 (1), 22
- Aguzzi J, Flögel S, Marini S, Thomsen L, Albiez J, Weiss P, Picardi G ... Danovaro R. (2022) Developing technological synergies between deep-sea and space research. **Elem Sci Anth** 10 (1), 00064
- Bianchelli S, Martire ML, Pola L, Gambi C, Fanelli E, Danovaro R. (2022) Impact of hypersaline brines on benthic meio-and macrofaunal assemblages: A comparison from two desalination plants of the Mediterranean Sea. **Desalination** 532, 115756
- Howell KL, Hilário A, Allcock AL, Bailey D, Baker M, Clark MR, Colaço A, Danovaro R. (2021) A decade to study deep-sea life. **Nature Ecology & Evolution** 5 (3), 265-267
- Aguzzi J, Flexas MM, Flögel S, Lo Iacono C, Tangherlini M, Costa C, ... Danovaro R. (2020) Exo-ocean exploration with deep-sea sensor and platform technologies. **Astrobiology** 20 (7), 897-915
- Beolchini F, Becci A, Barone G, Amato A, Hekeu M, Danovaro R. (2020) High fungal-mediated leaching efficiency of valuable metals from deep-sea polymetallic nodules. **Environmental Technology & Innovation** 20, 101037
- Danovaro R, Fanelli E, Aguzzi J, Billett D, Carugati L, et al. (2020) Ecological variables for developing a global deep-ocean monitoring and conservation strategy. **Nature Ecology & Evolution** 4 (2), 181-192
- Aguzzi J, Chatzievangelou D, Marini S, Fanelli E, Danovaro R, et al. (2019) New high-tech flexible networks for the monitoring of deep-sea ecosystems. **Environmental Science & Technology** 53 (12), 6616-6631
- Cavicchioli R, Ripple WJ, Timmis KN, Azam F, Bakken LR, Baylis M, ... Danovaro R. (2019) Scientists' warning to humanity: microorganisms and climate change. **Nature Reviews Microbiology** 17, 569-586.
- Danovaro R, Canals M, Tangherlini M, Gambi C, Galderic L, Amblas D, et al. (2017) A submarine volcanic eruption leads to a novel microbial habitat. **Nature Ecology & Evolution** 1 (6)
- Danovaro R, Aguzzi J, Fanelli E, Billett D, Gjerde K, Jamieson A, et al. (2017) An ecosystem-based deep-ocean strategy. **Science** 355 (6324), 452-454
- Danovaro R, Molari M, Corinaldesi C, Dell'Anno A. (2016) Macroecological drivers of archaea and bacteria in benthic deep-sea ecosystems. **Science Advances** 2 (4), e1500961
- Barbier EB, Moreno-Mateos D, Rogers AD, Aronson J, Pendleton L, ... Danovaro R. (2014) Ecology: Protect the deep sea. **Nature** 505 (7484), 475-477
- Pacton M, Wacey D, Corinaldesi C, Tangherlini M, Kilburn MR, Gorin GE, Danovaro R, et al. (2014) Viruses as new agents of organomineralization in the geological record. **Nature communications** 5 (1), 4298
- Pusceddu A, Bianchelli S, Martín J, Puig P, Palanques A, Masqué P, ... Danovaro R. (2014) Chronic and intensive bottom trawling impairs deep-sea biodiversity and ecosystem functioning. **Proceedings of the National Academy of Sciences** 111 (24), 8861-8866
- Danovaro R, Dell'Anno A, Corinaldesi C, Magagnini M, Noble R, et al. (2008) Major viral impact on the functioning of benthic deep-sea ecosystems. **Nature** 454 (7208), 1084-1087
- Danovaro R, Bongiorno L, Corinaldesi C, Giovannelli D, Damiani E, Astolfi P, et al. (2008) Sunscreens cause coral bleaching by promoting viral infections. **Environmental Health Perspectives** 116, 441-447.

**Publication in Top ranked journals:** Nature, Science, Science Advances, Nature Protocols, Nature Communication, Nature Ecology and Evolution, Nature Microbiology Review, PNAS.

#### ***Bibliometric Indicators:***

Roberto Danovaro has published **411** manuscripts (WoS)  
>**39200** citations GS (23000 WoS),  
H=**102** (GS) (82 WoS)  
I10-index: **373**

**Publication journals in Engineer and Technology journals:** Environmental Science and Technology, Engineers, Astrobiology, Renewable and Sustainable Energy Reviews, Science of the Total Environment, Elementa Science of the Anthropocene.

## Peer recognitions

### Awards

- 2022: International Academy of Science and Underwater Techniques - “Gold Trident”.  
2020: Expertscape nominates RD top World scientist in the field “Oceans and Seas” for the decade 2010-2020.  
2019: Top-Cited Scientist (Public Library of Science).  
2013: ENI Award “Protection of the Environment Prize” by the President of the Italian Republic Giorgio Napolitano for the investigations on the role of marine viruses to contrast climate change.  
2011: *Médaille de la Société d'océanographie de France* 2010 - for the discovery on deep-sea ecosystems.  
2010: World Prize BMC Biology (London) for the discovery of the first animals living without oxygen.

### Scientific Academies

- Since 2022: Member of the Academia Europæa (Academy of Europe).  
Since 2018: Member of the EU Academy of Sciences (EUAS).

### Invited speaker to international events

COP26, OECD, Korea, PICES, Bergen; EMBS Reykjavik - Iceland; JPIO, Royal Society, London; SER Cape Town; College de France, Paris; ISME Montreal, Canada; Israel Academy of Science and Humanities, Jerusalem; University of Southampton; Oregon State Univ., Havana, Cuba; CBBM, Brazil; JAMSTEC, Tokyo, Japan; Academia Europaea, ICES; CIESM, Istanbul; CAREX, Dublin; Total Foundation, Port Cros; FEMS, Valencia; CIESM, Monaco; Chinese Academy of Science, Beijing; AGU (America Geophysical Union), Scripps, San Diego, USA; Institute Ocean Paris, France.

### Faculties

- Since 2020: Member of the Faculty Opinions.  
Since 2014: Member the Faculty of 1000 Biology

## ADDITIONAL INFORMATION

### Editor in Chief

- 2000 - present Chemistry and Ecology – Taylor & Francis, London  
2019 - present Marine Ecology – Wiley & Sons

### Scientific Councils and Board (last 10 years)

- Since 2024: Member of the *Mediterranean Programme Advisory Council (COMed) –Institut Océanographique de Monaco, Fondation Albert 1<sup>er</sup>*.  
Since 2023: Member of the Scientific Council of *Alleanza Italiana per lo Sviluppo Sostenibile (ASviS)*  
Since 2022: Member of the Steering Board *Sustainable Blue Economy Partnership*  
Since 2020: Member of the *Joint Program Initiative Healthy and Productive Oceans and Seas (JPI Oceans)*  
Since 2019: Member of the *European Marine Board*  
Since 2019: Member of the Scientific Council of *Slow Food International & Slow Food Inspiration Board*  
Since 2018: Member International *Scientific Committee of the Holy Shroud (Tourin)*  
Since 2016: Member of the Scientific *Commission ENI Awards - FEEM*  
2017 - 2020: Member of the Steering Board *OECD: Fostering innovation in Ocean Economy*  
2017 Member of the High-Level Group of *Scientific Advisors of the European Commission*, Directorate-General for Research and Innovation  
2014 - 2018: Member of the *European Implementation Board EU Research Infrastructure ERIC- EMBRC*

### Career breaks, diverse career paths and major life events

- None

### Institutional bodies

- 2023- present Member of the *System of Environmental Economic Accounting – Ecosystem accounting (SEEA-EA)* of ISTAT for the (EU) 691/2011 Eurostat Expert Group on Ecosystem Accounts  
2023-present Member of the National Scientific Commission Antarctica (CSNA-PNRA) as delegate of the Conference of Rectors of Italian Universities (CRUI)  
2021-2024: Member of the Commission Environmental Impact Assessment and Strategic Environmental Assessment (VIA-VAS) of the Ministry of Environment  
2023-present: Member of the National Commission of the Ministry of University and Research for the evaluation of the 3-yr Research Plan (PTA) of the Public Research Institutions (EPR)

- 2019-2020 Member of the National Technical Scientific Committee L. 113/1991 for the Dissemination of Scientific Culture  
2018-2024 Member of the National Commission ex D.M. 08.02.2008 n. 44 for the financial support to functioning of private research institutions.  
2018- present Member of the National Committee on Natural Capital *ex lege* L. 115/2015

### **Other contributions to the research community**

#### ***Dissemination Books***

- Danovaro together with the Macroeconomist Gallegati has published the book *Condominio Terra* (Ed. Giunti), ranked second for the *Award for Scientific Dissemination* (Premio Nazionale di Divulgazione Scientifica, 2019).  
Danovaro R (2024) *Restaurare la Natura* – Edizioni Ambiente, 128 pp. - in press  
Danovaro R - Gallegati M (2024) *La riconquista del futuro: perché la Transizione ecologica è necessaria (e urgente)*, Laterza, 101 pp. - in press

#### ***Scientific Books***

- Danovaro R - Snelgrove P. (2024) *Marine Biology: Comparative Ecology of Planet Ocean*. John Wiley & Sons  
Danovaro R. (2019) *Marine Biology (Biologia Marina – 2nd Edition*. UTET - De Agostini (Italy), 460 pp  
Danovaro R. (2013) *Marine Biology: Biodiversity and functioning of marine ecosystems (Biologia Marina, biodiversità e funzionamento degli ecosistemi marini)*. CittàStudi Edizioni De Agostini Scuola SpA Novara (Italy), 451pp  
Danovaro R. (2010) *Methods for the study of deep-sea sediments, their functioning and biodiversity*. CRC-Press, 456pp  
Danovaro R. (2001) *Recupero Ambientale: Tecnologie, bioremediation e biotecnologie*. UTET - Italy, 581pp  
Della Croce N, CattaneoVietti R, Danovaro R. (1997). *Ecologia e protezione dell'ambiente marino costiero*. UTET - Italy, 426pp

#### ***Author in Encyclopedias***

- Danovaro R & Boero F. (2019) Italian seas - *World seas: An environmental evaluation*  
Danovaro R. (2018) Mari e Oceani d'Europa - *Treccani*  
Danovaro R & Snelgrove PV. (in press) Deep-sea ecology - *Oxford Bibliographies*  
Snelgrove PV & Danovaro R. (2023) Marine Biodiversity - *Oxford Bibliographies*  
Danovaro R et alii. (2012) Anoxyphilic Loricifera - McGraw-Hill *Yearbook of science & Technology*, 5-8

#### ***Others:***

- 2020: Founder of the “Distretto Tecnologico *Blue Growth* Campania”  
2016: Contribution to the Tsukuba Communiqué G7 Science and Technology Ministers' Meeting in Tsukuba, Ibaraki  
2012: Founder of start-up (Spin Off of the Polytechnic University of Marche): Ecoreach  
2010: Cofounder of the “Going Blue Too Foundation” (Charitable organization UK) for promoting Eco-friendly personal care products with no impacts on the Oceans  
2008 - 2011 Member of the Evaluation Committee of International Patents at the UNIVPM  
2007: Founder of the First Academic Degree in Italy for: *Environmental Sustainability and Civil Protection* at the Polytechnic University of Marche.  
2004: Founder of start-up (Spin Off of the Polytechnic University of Marche): Ecotechsystems  
2003 - 2010 Inventor of two ***International Patents*** in collaboration with industries (oil companies, personal care companies). Method and plant for controlling the colonization of submerged structure surfaces by aquatic filtering organisms US20050232960A1; Sunscreen compositions US20140170096A1

#### ***Curiosities***

- 2018 - A new species of worms, the *Prosphaerosyllis danovaro* was dedicated to Danovaro for his contribution to deep-sea research.  
2018 - New York University - ***ESF Award*** top 10 New Species discovered.  
2010 - the publications of Danovaro on the impact of sunscreens on ocean life led to the adoption of the Hawaiian Act for the ban of oxybenzone in personal care products.  
2008 - the publication of Danovaro got the ***Cover of Nature*** and the manuscript was included in the “Top 20 publications of the year 2008”.