

DANIELA MARIA BASSO

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ACADEMIC BACKGROUND

1993 PhD, Earth Sciences, University of Milano: *Calcareous Rhodophyceae of the circalittoral soft bottoms of the Tyrrhenian Sea: the rhodoliths in a paleoecological perspective*

1989 Degree in Natural Sciences (summa cum laude), University of Milano.

POSITION

Present position: Full Professor at the Dept. of Earth and Environmental Sciences, UNIMIB.

2006-2019 Associate Professor at the Dept. of Earth and Environmental Sciences, UNIMIB.

2002-2006 Assistant Prof., Dept. of Geological Sciences and Geotechnologies, UNIMIB.

2001-2002 Research fellow, Dept. of Geological Sciences and Geotechnologies, UNIMIB.

1999-2001 Research fellow, Dept. of Earth Sciences, University of Milano

1998 One-year part-time position as Scientific Technician for the Avicenne Project (EU)

1994-1997 Post-doc fellow at the Dept. of Earth Sciences, Univ. Milano

TEACHING

- General and systematic paleontology (undergraduates)
- Geobiology and Applied marine paleoecology (master students)
- Marine Geology and geobiology of tropical environments (master: Marine Sciences for sustainable development), 2011.
- Marine Geology and geobiology of tropical environments (master: Natural Science guides: Mediterranean and Tropics), 2003-2006.
- Tutor or co-tutor of dozens of graduate and master thesis in Earth Science and in Natural Sciences
- Tutor or co-tutor of several PhD theses in Earth Sciences (UNIMIB - Italy, Brno University - Czech Republic), and within the European Doctorate, Univ. da Coruña - Spain.

AREAS OF EXPERTISE AND PROFESSIONAL ACTIVITIES

- Ecology and paleoecology of macrobenthic communities
- Mediterranean and Indo-Pacific benthic associations
- Biogeological record of recent environmental changes in coastal areas
- Systematics, ecology/paleoecology and biogeochemistry of living and Cenozoic calcareous algae Corallinophycidae (Rhodophyta) and their role in the bioconstruction and the global climate change
- Numeric palaeobiology: image analysis and multivariate analysis of benthic associations
- CO₂ reduction and mitigation of ocean acidification

D. Basso has published 210 scientific contributions: 105 research papers and book chapters, and more than 100 abstracts for presentations in national and international congresses.

Google Scholar H-index 30

Scopus H-index 27

AWARDS AND OTHER HONORS

- 1997 CNR award for short-term mobility abroad (Plymouth Marine Laboratory, UK)
- 2012 Triennale di Milano, VisionLab, invited participation in the exhibit PinkVision – *Art Science and Bricks* - with the artwork *Constructive competition*
- 2014 Invited Visiting Professor at Université de Bretagne Occidentale (UBO), Brest, France

INVITED SPEAKER

About 30 invited talks (scientific society congress, workshops, cultural events) in Italy, France, Switzerland, Germany, Brazil, India.

ASSOCIATIONS

International Fossil Algae Association (present President); Società Geologica Italiana; Società Paleontologica Italiana (Italian Paleontological Society); International Association of Sedimentologists; Gruppo Algologia della Società Botanica Italiana (Italian Botanical Society, Phycology), International Fossil Coral and Reef Society (IFCRS)

EXPERIENCE AS EVALUATOR AND REFEREE

- Member of the Italian Commission for the Abilitazione Scientifica Nazionale (ASN) for the scientific sector 04/A2 (Structural Geology, Stratigraphy, Sedimentology and Paleontology)
- Project Evaluator for the European Union FP7 Programme (Environment)
- External evaluator of the scientific products for the Italian ANVUR
- Member of the national commission of final examination for the PhD title (in Milano, Rome, Trieste, Padova, Cosenza)
- Member of the National Jury of FAST, for the European Union Contest for Young Scientists, "*I giovani e le scienze*".
- Associate Editor of the scientific journal *Carnets de Geologie*
- Subject Editor of the scientific journal *Marine Biology Research* for the field "*Calcareous algae and Marine Bioconstruction*"
- Former Assistant Editor of the scientific journal *Brazilian Journal of Botany*
- Referee for the following journals (verified by Publons: <https://publons.com/author/621206/daniela-basso#profile>): Australian Journal of Botany, Biogeosciences Discussions, Bollettino della Società Geologica Italiana, Botanica Marina, Brazilian Journal of Oceanography, Cahier de Biologie Marine, Chemical Geology, Cryptogamie Algologie, Geodiversitas, Geological Society of America Bull., Geological Quarterly, Geology, Helgoland Marine Research, J. of Environmental Management, J. of geophysical research, J. of Mediterranean Earth Sciences, Lethaia, Marine Ecology, Marine Ecology Progress Series, Marine and Petroleum Geology, Mediterranean Marine Science, Micropaleontology, Palaios, Paleobiology, Palaeobiodiversity and Palaeoenvironments, Palaeogeography Palaeoclimatology Palaeoecology, Paläontologische Zeitschrift, Phycologia, Phytotaxa, Plants, PLOS One, Rivista Italiana di Paleontologia e Stratigrafia, Scientific Reports, Sedimentary Geology, Sedimentology, Spanish Journal of Palaeontology.

SCIENTIFIC INITIATIVES

- Convener of the session *Not only z-corals: Quaternary reefs across the latitudinal and depth gradients* at the incoming INQUA 2023 (Intl Union for Quaternary Research).
- Co-Editor of Frontiers Research Topic *Crustose Coralline Red Algae Frameworks and Rhodoliths: Past and Present*
- Member of the scientific committee at the 12th Intl Symposium on Fossil Algae, Lucknow – India, 16-

24/9/2019.

- Convener of the session *Carbonate producers and Cenozoic platforms* at IAS (Intl. Association of Sedimentologists) Rome, 10-13/9/2019.
- Co-convener of the session *Marine habitats and seascapes: from discovery to management*, at the International IALE Congress, Milano, 1-5/7/2019.
- Co-convener of the session *Bio-Geo-Interactions in non-tropical and tropical marine carbonate systems* at the IMS meeting (Intl. Association of Sedimentologists) 10-12/10/2017 (Toulouse, France).
- Co-convener of the national workshop and doctoral seminar on *Seafloor mapping & tutela dello spazio marino*, Univ. of Milano-Bicocca, 19-20/10/2017.
- Convener of the session *Sedimentology and geobiology of carbonate build-ups* at the IMS meeting (Intl. Association of Sedimentologists) 22-25/6/2015 (Krakow, Poland).
- Co-convener of the COCARDE workshop *Biocostruzioni marine fossili e attuali della Sicilia: valorizzazione e divulgazione*, Museo Gemmellaro, Palermo (Italy), October 8, 2015.
- Co-convener of the Intl. workshop and field-seminar COCARDE 2013 Bridging offshore and on land research on carbonate mounds: common concepts and techniques, Sicily (Italy).
- Member of the scientific committee of the IAS (Intl. Association of Sedimentologists) meeting 2012 (Schladming, Austria) and convener of the session: Sediment-benthos interaction in recent coastal environments.
- Chair and organizer of the international congress: 6th IFAA (Intl. Fossil Algae Association) Symposium in Milan (Italy), July 2009 <http://www.geo.unimib.it/ifaa/>
- Member of the scientific committee for the Geological sciences of UNIMIB for the establishment of the MaRHe Outpost of the Milano Bicocca Univ. (Marine Center for Research and Higher Education) in Magoodhoo, Rep. of Maldives (2008-2009)
- Co-founder and former director of the Center for Tropical Marine Ecology (CoNISMa)
- Chair and organizer of the 1st CEMT Workshop (Milan, 23/5/2005)
- Pan-African Conference UNESCO-UNEP-FAO on Sustainable Integrated Coastal Management (PACSICOM), Maputo, Mozambique, 18-24/7/1998. Coordinator of the Italian delegation, through the Italian Ministry for Foreign Affairs.

MANAGEMENT

- Former Director of the International Master's programme in Marine Sciences, University of Milano-Bicocca (2018-2020)
- Member of the Academic Council for PhD in Earth Sciences
- Member of the National Inter-University Consortium for Marine Sciences (CoNISMa), Delegate of the Rector and Member of the National Board
- Member of the scientific committee of the CUDaM, Milano-Bicocca University Dating Centre
- Italian delegate member of the steering committee of the European Research Network COCARDE-ERN (Cold-water carbonate mounds in shallow and deep time) of the European Science Foundation (www.esf.org/cocarde)
- Initiator and scientific coordinator of national and international agreements:
 - HAIFA UNIVERSITY (Israele), scientific collaboration and student exchange.
 - MALTA UNIVERSITY - Università ta' Malta, scientific collaboration and student exchange.
 - GHENT UNIVERSITY – Renard Centre of Marine Geology) (Belgio), scientific collaboration and student exchange.
 - Johannes Gutenberg- UNIVERSITÄT MAINZ, international mobility (Erasmus)
 - ISTITUTO OIKOS (Milano), collaboration in joint initiatives of environmental management and conservation in Myanmar, Mozambique and Tanzania.
 - MARINE PROTECTED AREA “CAPO CARBONARA” (Sardinia), scientific collaboration and student secondment
 - MARINE PROTECTED AREA “CAPO RIZZUTO”(Calabria), scientific collaboration for marine coastal management and conservation, and student secondment.

OTHER INTERNATIONAL COLLABORATIONS

- Universitat de Barcelona, Spain (stable isotopes and biogeochemical proxies)
- Université de Fribourg, Switzerland (present and fossil bioconstruction; chemosymbiosis)
- Universidade de Vigo, ECIMAT, Spain (ocean liming for the mitigation of ocean acidification)
- HCMR, Crete, Greece (ocean liming for the mitigation of ocean acidification)
- University College Cork, National University of Ireland (cold-water corals and Holocene bioconstruction)
- Uniwersytet Adama Mickiewicza W Poznaniu, Poland (Sr/Sr dating)
- CNRS Orléans, France (NMR analyses)
- Université de Bretagne Occidentale (UBO) Brest, France (fossil algae)
- Institute of Paleobiology, Polish Academy of Sciences, Poland (carbonate diagenesis)
- Université de Liège - Belgio (bioconstruction)
- Universidade Federal Fluminense, Niteroi - Brazil (algal bioconstruction)
- KAUST King Abdullah University of Science and Technology , Saudi Arabia (present and fossil reefs and rhodolith beds)

NATIONAL AND INTERNATIONAL RESEARCH PROJECTS AND NETWORKS (last 10 years)

- AQUACOSM.eu. Project OLCAPP - Impact of Ocean Liming on Calcareous Primary Producers, in collaboration with Universidade de Vigo, Spain, ongoing (Principal Investigator).
- Fondation Albert II de Monaco. OACIS programme. Project *Ocean liming in European seawater: a mesocosm scale approach*, ongoing (Principal Investigator).
- PON 2019 Geoarchaeological investigations in the Marine Protected Area of Capo Rizzuto, Crotone, ongoing (Principal Investigator).
- FISR 2019 – CRESCIBLUREEF *Grown in the blue, new technologies for the knowledge and conservation of Mediterranean reefs*, MUR National Project, 2021, ongoing (Principal Investigator).
- RESILIENCE - Understanding coral thermal bleaching thresholds during past Interglacial extremes: Insight into thermal stresses dynamics on tropical Coral reef Ecosystems, Swiss National Science Foundation, 2021, ongoing (Italian coordinator).
- Ocean Liming Project - Development of Ocean Liming as a tool for removing atmospheric Carbon and contrasting seawater acidification, EULA consortium, 2020.
- *Marine Strategy* – National activity of implementation of the Marine Strategy Directive of the EU, coordinated by CoNISMa and ISPRA, for the Italian Ministry for the Environment. Research activity about the rhodolith beds habitat of the Capo Carbonara MPA (Sardinia, Italy), 2018-2019.
- SEMSEEP *South-Eastern Mediterranean Seep Carbonates*. A research project under the EUROFLEETS 2 initiative. Italian associate researcher for macrobenthos, 2016-2017.
- Research Network COCARDE-ERN *Cold-water carbonate mounds in shallow and deep time*, Italian delegate member of the steering committee, 2011-2016.
- RITMARE – La ricerca italiana per il mare. CNR, 2012-2015. Responsible for the RU of Milano-Bicocca of the activity: *Le scienze del mare nelle scuole*, coordinated by A. Rosso (UNICT).
- EU Programme ENVIRONMENT - *Impact of Ocean acidification in the Mediterranean in a changing climate*. Project MedSeA, coordinator of the CoNISMa unit on ecology and carbonate production of coralline algae. European Commission, DG XII, 2010-2013.
- Vigoni Programme 2011 - *Multi-proxy climate archives for the Indian Ocean*. National coordinator
- MIUR – Initiative for the diffusion of the scientific culture – *At the seafloor: investigations and research of Marine geology and Geobiology*. National coordinator.
- *Marine Strategy* – National activity of implementation of the Marine Strategy Directive of the EU, coordinated by CoNISMa and ISPRA, for the Italian Ministry for the Environment. Expert member for the coralline-engineered marine habitats.

- *EU EuroMarine Network. From genes to ecosystems in changing oceans.* Steering committee substitute representative of CoNISMa, 2014-2016.
- BIOMAP – Apulia region. Marine Bioconstructions in Apulia P.O FESR 2007/2013. Identification and biodiversity evaluation of calcareous red algae from the Coralligenous Biocoenosis.
- MIUR – Initiative for the diffusion of the scientific culture – *Valorization of the historical collections of fossil algae in the University Museum of Genoa and Milan: a pilot project for the diffusion of paleontology (2009-2010).* National coordinator.

PUBLIC OUTREACH

- OCEAN & CLIMATE VILLAGE at PreCop26. Coordination of the activities for UNESCO-IOC Italia, Triennale di Milano 1-2 ottobre 2021.
- LIFE BEYOND PLASTIC Project Oikos-AICS for the education aimed at the reduction of plastics at sea. Seminars for teachers: Varese, 24/10, Milano, 14/11/2019. A worldwide perspective to the problem of plastics in the oceans.
- PICCOLE ISOLE E PROBLEMI GLOBALI Auditorium U12, Milano, 13/3/2019. Coordination of the event organized by the Marine Sciences Master's programme. Introduction to the Department research about geological dynamics and minor insular systems.
- FÀ LA COSA GIUSTA! Fieramilanocity, 9/3/2019. Coordination of the event with presentation of the conference *L'ultima frontiera del diritto internazionale del mare: le risorse genetiche dei fondali abissali*
- MEET ME TONIGHT – EUROPEAN RESEARCHERS' NIGHT 2018. Giardini di Via Palestro, Milano 28-29/9/2018. Event: *Capire il clima impazzito: scienza e tecnica per gestire il cambiamento*, for the presentation and public outreach of the Department project MIUR DISAT - Dipartimenti di Eccellenza 2018-2022.
- Participation in the 2012 (at the Milano Aquarium), 2015 (at EXPO Milano), 2016 and 2022 editions of "La settimana del Pianeta Terra".
- WORLD OCEANS DAY 2017 (8/6/2017: seminar at UNIMIB);
- MEET ME TONIGHT – EUROPEAN RESEARCHERS' NIGHT (Milano, 2017).
- Promotion of the diffusion of the geological marine sciences through seminars, radio and TV interviews, articles, public debates, and artistic exhibition (PinkVision, La Triennale di Milano).