

CURRICULUM VITAE

MARINA MONTI

PERSONAL INFORMATION:

Marina Monti-Birkenmeier

Nationality: Italian

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EDUCATION:

DEGREE IN NATURAL SCIENCE - University of Trieste, 1986, Laurea in Scienze Naturali

"Primary Production in the Gulf of Trieste".

DEGREE IN GEOLOGICAL SCIENCE - University of Trieste, 1999, Laurea in Scienze Geologiche

"Sedimentology of two cores in the Strait of Magellan".

DOCTORAL DEGREE, PhD - University of Trieste, XVIII Cycle

"Physiology of the dinoflagellate *Prorocentrum minimum*".

POSITIONS:

2005 - present: TEMPORARY CONTRACT RESEARCHER SCIENTIST, Istituto Nazionale di Oceanografia e di Geofisica Sperimentale (OGS), Trieste.

1992-2005: PERMANENT CONTRACT RESEARCHER SCIENTIST, Laboratory of Marine Biology (LBM), Trieste.

1991-92: FELLOWSHIP "Microzooplankton in the Adriatic Sea", Laboratory of Marine Biology (LBM), Trieste.

1990-91: FELLOWSHIP "Phytoplankton in the Adriatic Sea", Laboratory of Marine Biology (LBM), Trieste.

1985-1990: Temporary collaborations at the Department of Biology and Department of Geology University of Trieste.

RESEARCH ACTIVITIES:

Experienced in plankton analyses, with emphasis on temporal and spatial distribution and composition patterns of the major microplanktonic categories, and their relationships to physical and chemical seawater characteristics. Involved in field projects investigating microzooplankton in Mediterranean, Arctic and Antarctic areas. Working on cultures of unicellular planktonic organisms for studying the ecology and ecophysiology of protists, harmful algae physiology, feeding biology and micromorphology of dinoflagellates.

PROFESSIONAL EXPERIENCE:

1985: Oceanographic Cruise North Adriatic: working on the impact of discharges from the Gypsum Industry (**Fertimont S.p.a.** and **Montefluos S.p.a.**) on the *phytoplankton* communities of the Adriatic Sea. Responsible for phytoplankton analysis.

1986-1989: Research Assistant working on *microzooplankton* for "**Project Sea**" financed by Tuscan Region.

1987-2011: processing samples to identify and quantify the *microzooplankton* population in the Ross Sea (Antarctica) (nine campaigns: 1987/88, 1989/90, 1994/95, 1997/98, 2000/01, 2003, 2006, 2010 and 2011) financed by the **Italian National Antarctic Research Program (PNRA)**.

1988-1989: Research Assistant working on a government-funded project "**Fluxes**", a multidiscipline project carried out by the University of Trieste and studying phyto and microzooplankton and sedimentology of the Central Adriatic. Responsible for identification and recording of *plankton* samples.

1989: First Oceanographic Cruise in the **Strait of Magellan**. Working on *microzooplankton*.

1990-91: Fellowship on Adriatic *phytoplankton* population financed by "**Alpe Adria Program**". This is a project looking at the effect of mucilaginous aggregates on the Adriatic ecosystem.

1991: Second Oceanographic Cruise in the **Strait of Magellan**. Working on *microzooplankton*.

1991-92: Fellowship on Adriatic *microzooplankton* population financed by "**Alpe Adria Program**".

1993-94: Responsible of the study on mucous aggregates and on *algal physiology* financed by "**Federchimica Assocasa**".

1996-2000: Working on Adriatic *microzooplankton*, financed by "**Paloma Project**" "**Prisma Program**" and "**Interreg Project**".

1997: One month research visitor one at the University of Washington (Dr. Evelyn Lessard) studying on *heterotrophic dinoflagellates*.

2001: Invited speaker at the 32° Congress of Italian Marine Biology (SIBM) Numana 5-9 June: "Heterotrophic dinoflagellates distribution and their role in the marine system".

Two weeks researcher visitor at the University of Maryland (Dr. Diane Stoecker) studying on *mixotrophic dinoflagellates*.

2001-2004: Working on *microplankton* analyses in Adriatic and Tyrrhenian Sea, financed by "**Interreg Project**", "**MAT Project**" and "**Eolide Project**".

2003: one-month fellowship at the KMRS (Kristineberg Marine Research Station, SWEDEN) for studying the mixotrophic dinoflagellate *Prorocentrum minimum*.

2005-2007: Working on *physiology of microalgae* "**Interreg**" and "**EcoMadr**" Projects, financed by Friuli Venezia Giulia (FVG) Region.

2008-2009: Working on *microzooplankton* analyses in "**Sesame** (Southern European Seas Assessing and Modelling Ecosystem)" and "**EglaCom** (Evolution of the Glacial Arctic Continental Margin)" Projects.

2008-2010: Responsible for plankton analyses in mussels stomach and gut, ecophysiology experiments in the Project “**Mitili** (Mussels Project)”, financed by FVG Region.

2009: Responsabile for the Project “**Ostreopsis** (*Ostreopsis ovata* e *Ostreopsis* spp.: nuovi rischi di tossicità microalgale nei mari italiani)”, financed by Istituto Superiore per la protezione e Ricerca Ambientale (ISPRA).

2010-14: Coordinator in the Italian National Antarctic Research Program project “**Microzooplankton abundance and biomass in polynya of Terra Nova Bay and comparison with similar polar systems**”.

2011-2014: Working on the *microzooplanktonic* community analyses in different projects, **ECO₂** (Sub-seabed CO₂ Storage, Impact on Marine Ecosystems”, EU project FP7); **Medges** (Integrated study of the influence of physical processes and anthropogenic factors on the state of coastal and deep ecosystems in the central Mediterranean); **Perseus** (Policy-oriented marine Environmental Research in the Southern European Seas); **Medsea** (Mediterranean Sea Acidification in a changing climate”, EU project FP7); **Ritmare** (Flagship Project of the National Research Programmes funded by the Italian Ministry of University and Research); **EnvEUROPE** (Environmental quality and pressures assessment across Europe: the LTER network as an integrated and shared system for ecosystem monitoring).

2015: Edipo (Eirik Drift Paleo Oceanographic Investigation) Cruise with the research vessel “OGS Explora” on the southern edge of Greenland. The project, funded by Italian PNRA, aims at the acquisition of marine sediment, seismic and morphobathymetric data. The participation in the Project had the aim to collect and process *microzooplankton* samples.

2005-present: working on *microzooplankton* in the “**time-series station C1**” in the Gulf of Trieste (northern Adriatic Sea). The time series C1 station is monitored since 1986, and in 2006 the station has been formally included in the Italian network of long term ecological research sites (LTER-Italy) as part of the northern Adriatic LTER site.

2013-2016: Research Unit Leader in the project “**The trophic role of microzooplankton in the Weddell/Scotia Sea**” in collaboration with the Alfred Wegener Institute (AWI), financed by the Italian National Antarctic Research Program (PNRA).

2016: Project “**Acid.It**” financed by the Italian Ministry of University and Research (MIUR), experiments on the effects of sea acidification on *mixotrophic dinoflagellates*.

2017-present: Coordinator in the project “**Plankton Enigma in the Antarctic Sea Environment (PLEASE)**” in collaboration with the Alfred Wegener Institute (AWI), financed by the Italian National Antarctic Research Program (PNRA).

Activity at sea: 15 oceanographic cruises in Adriatic, Thyrrhenian and Polar areas.

Languages:

Italian: Mother tongue

English: Fluent

German: Basic knowledge

Most relevant publications:

Monti M., Fonda Umani S. (2000) - Distribution of the main microzooplankton taxa in the Ross Sea (Antarctica): austral summer 1994. In: *Ross Sea Ecology: Italian Antarctic Expeditions (1987-1995)*, Faranda et al. eds., Springer-Verlag Berlin, 275-289.

Fonda Umani S., Accornero A., Budillon G., Cappello M., Tucci S., Cabrini M., Del Negro P., Monti M., De Vittor C. (2002) - Particulate matter and plankton dynamics in the Ross Sea Polynya of Terra Nova Bay during the Austral Summer 1997/98. *J. Mar. Syst.*, 36: 29-49.

Monti M. (2002) - Dinoflagellati eterotrofi: il loro ruolo in ambiente marino. *Biologia Marina, suppl. notiziario S.I.B.M.*, 9(1): 312-331.

Fonda Umani S., Monti M., Bergamasco A., Cabrini M., De Vittor C., Burba N., Del Negro P. (2005) - Plankton community structure and dynamics versus physical structure from Terra Nova Bay to Ross Ice Shelf (Antarctica). *J. Mar. Syst.*, 55: 31-46.

Monti M., Zrimec A., Beran A., Berden Zrimec M., Drinovec L., Kosi G., Tamberlich F. (2005) - Delayed luminescence of *Prorocentrum minimum* under controlled conditions. *Harmful Algae*, 4: 643-650.

Monti M., Minocci M., Beran A., Iveša L. (2007) - First record of *Ostreopsis* cfr. *ovata* on macroalgae in the Northern Adriatic Sea. *Mar. Poll. Bull.*, 54: 598-601.

Berden-Zrimec M., Flander-Putrlje V., Drinovec L., Zrimec A., Monti M. (2008) - Growth, delayed fluorescence and pigment composition of four *Prorocentrum minimum* strains growing at two salinities. *Biological Research*, 41: 11-23.

Berden-Zrimec M., Flander-Putrlje V., Drinovec L., Zrimec A., Monti M. (2008) - Delayed fluorescence as a measure of nutrient limitation in *Dunaliella tertiolecta*. *J. Photochemistry and Photobiology*, 92: 13-18.

Monti M., Stoecker D.S., Cataletto B., Talarico L. (2010) - Morphology of the flagellar pore complex in *Prorocentrum minimum* (Dinophyceae) from the Adriatic and Baltic Seas. *Botanica Marina*, 53: 357-365.

Fonda Umani S., Franzè G., Modigh M., Monti M. (2010) – Microzooplankton. Metodologie di studio del plancton marino. In: *Manuale e linee guida 56* (eds. Socal et al.), Cap. 41: 477-487.

Fonda Umani S., Monti M., Minutolo R., Guglielmo L. (2010) – Recent advances in the Mediterranean researches on zooplankton: from spatial – temporal patterns of distribution to processes oriented studies. *Advances in Oceanography and Limnology*. Vol.1, 2: 295-356.

Fonda Umani S., Monti M., Cataletto B., Budillon G. (2011) – Tintinnid distributions in the Strait of Magellan (Chile). *Polar Biology*, DOI: 10.1007/s00300-011-0972-7.

Berden-Zrimic M., Monti M., Zrimec A. (2012) - Photosynthesis in microalgae as Measured with Delayed Fluorescence Techniques. In: *Advances in Photosynthesis - Fundamental Aspects*, Mohammad Mahdi Najafpour (Ed.), ISBN: 978-953-307-928-8, InTech.

Monti M., Minocci M., Milani L., Fonda Umani S. (2012) - Long term dynamics of the microzooplankton in the Gulf of Trieste (Northern Adriatic Sea). *Estuarine Coastal Shelf Science*, DOI: 10.1016/j.ecss.2012.03.032

Monti M., Cecchin E. (2012) - Comparative growth of three strains of *Ostreopsis ovata* at different light intensities and the allelopathic interactions on three microalgae. *Cryptogamie Algologie*, 33 (2): 113-119.

Monti M., Minocci M. (2013) - Microzooplankton along a transect from North Norway to Svalbard Islands, July 2008. *Polar Research* 32, <http://dx.doi.org/10.3402/polar.v32i0.19306>.

Del Negro P., Monti M., Beran A., De Vittor C., Celussi M., Libralato S., Solidoro C. (2014) - Plankton as inexhaustible resource for the mussel farms of the Gulf of Trieste. *Biol Mar Medit* 21(1):14-16.

Corriero G. et al., (2015) - Ecosystem fragility to alien and invasive species: a case study on marine habitats along the Italian coast. *Aquatic Conservation: Marine and Freshwater Ecosystems*. DOI: 10.1002/aqc. 2550.

Karuza A., Caroppo C., Monti M., Camatti E., Di Poi E., Stabili L., Aurimma R., Pansera M., Cibic T., Del Negro P. (2015) - ‘End to end’ planktonic trophic web and its implications for the mussel farms in the Mar Piccolo of Taranto (Ionian Sea, Italy). *Environmental Science and Pollution Research*, DOI 10.1007/s11356-015-5621-1.

Monti M., Zoccarato L., Fonda Umani S. (2016) - Microzooplankton comparison dynamics under the sea ice and in the open waters in Terra Nova Bay (Antarctica). *Polar Biology*. DOI: 10.1007/s00300-016-2016-9.

Monti-Birkenmeier M., Diociaiuti T., Fonda Umani S., Meyer B. (2017) - Microzooplankton composition in the winter sea ice of the Weddell Sea. *Antarctic Science*. DOI: 10.1017/S0954102016000717.