

CLAUDIA LUPI, PHD

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PERSONAL INFORMATION

- Date of Birth: 03 June 1977
- Nationality: Italian
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STATUS: MARRIED WITH TWO CHILDREN (2011, 2014)

POSITION: December 2010 - Assistant Professor in Paleontology and Paleoecology at the Earth and Environmental Science Department, University of Pavia.

EDUCATION:

16th of January, 2007. PhD at the University of Pavia. Subject: "Calcareous nannoplankton and its relationships with the climate system in the Pleistocene Oceans" Supervisor Prof. Cobianchi Miriam

16th of February 2007. Graduated at the Institute for Advanced Study of Pavia (IUSS - SAFI)

20th of March 2003. Master degree in Geology at the University of Pavia. Subject: "The Cretaceous Oceanic Anoxic Events in the Gargano Promontory (South Italy). Supervisor Prof. Cobianchi Miriam

INSTITUTIONAL ROLE

- I am delegate of the University of Pavia in the national sustainability committee –RUS (Rete delle Università per lo Sviluppo Sostenibile) member of the working group in *Education*.

- I am a technical scientific member of the Office for Sustainable Actions (OSA) of the University, referee for Sustainable Education and Research.

- I am a technical scientific member of the University and City of Pavia Foundation for the School in local government (Fondazione Romagnosi).



- I am component of the coordination team of the National PhD in Sustainable development and climate change (PhD SDC). Coordinator of curriculum 1, Earth System and Environment.

RESEARCH PROFILE AND INTERESTS

I am currently working in the Micropaleontology Research Group of the University of Pavia (Italy). I am calcareous nannofossil specialist and I have studied successions from different geographic and oceanographic settings from Cretaceous to Pleistocene. The main goal is to interpret the geological events highlighting the relationships between physical and biological signals documenting, therefore, the usefulness of the micropaleontological data in the Earth science studies. At present, my research is focused on Pleistocene nannofossil associations to reconstruct the timing and the modalities of the nannofossil reactions to interglacials analogue to modern one in the Western Pacific Ocean and in the South China Sea (site MD97-2114; site ODP 181-1123; ODP 198-1209, IODP 368-1505; 368-1501). In addition, a new line of research is focused on culturing coccolithophores in the laboratory under controlled environmental conditions. The change in calcification and production of the different components of organic matter is investigated with high precision instruments from SEM, FTIR up to Synchrotron.

Through a multidisciplinary approach, co-authors and I try to document changes in the thermonutricline understanding the role of nannofossils in the Carbon cycle. Some hot topics are investigated, in particular: i) Pleistocene interglacials as analog of modern one; ii) Mid-Pleistocene Transition mechanisms documented by nannofossils; iii) the ability of coccolithophores to produce and export carbonate buffering the CO₂ in the oceans.

OPEN PROJECTS:

-- "Coccolithophore potential towards carbon fixation and climate mitigation". In collaboration with OGS Trieste and Universitat Autònoma de Barcelona;

- "Relations between monsoon activity and primary productivity in the South China Sea during key interglacials". In collaboration with the Tongji University (Shanghai China); project funded by the State Key Laboratory of Marine Geology (Shanghai China);



- "Global Change impacts on the Appennine reagion (Italy)". Research included in the project "Crayfish lineages conservation in north-western Apennine" funded by 18 - LIFE Nature and Biodiversity project LIFE-CLAW

SCIENTIFIC COLLABORATIONS:

- Universitat Autònoma de Barcelona, Institute of Environmental Science and Technology, Barcelona, Spain (Prof. Patrizia Ziveri and Dr Gerald Langer)

- National Institute of Biology of Ljubljana, Slovenia (dr Patricija Mozetič)

- National Institute of Oceanography and Experimental Geophysics – OGS – of Trieste (dr Manuela Bordiga and Cinzia De Vittor)

- Tongji University, Laboratory of Marine Geology, Shanghai China (Zhifei Liu, Zhimin Jian)

- CEREGE, Aix-Marseille Université – CNRS, Aix en Provence, France (Dr Beaufort Luc)

ACTIVITY AT SEA

- Member of the Scientific Party of International Ocean Discovery Program (IODP) Expedition 367 from February to April 2017 in the South China Sea.

TEACHING AND TUTORIAL ACTIVITY

From March 2024. Teacher for the course of master degree "Educating for sustainability: objectives, strategies and complexity" (3CFU) at the University of Pavia
From March 2020. Teacher for II level seminars "Paleoclimatology: reading the Past to inform the Future" (10 hours) at the Scuola Superiore IUSS Pavia

- From March 2019. Teacher for the course of master degree "Geoscience Teaching" (3CFU) at the University of Pavia.

- From September 2018 Teacher for the course of master degree "**Paleoclimate and Global change**" (6CFU) at the University of Pavia.

- From September 2014 to 2017. Teacher for the courses of master degree "**Applied Micropalenotology**" and "Paleoclimate and Global change" at the University of Pavia

- From January 2013. Teacher for the course for teaching qualification of high school teachers (TFA, PAS) "**Teaching of Earth sciences**" (4CFU)

- From 2021 to Present. Supervisor of PhD Thesis in the National PhD in Sustainable development and climate change (PhD SDC)



- From 2018 to Present. Trainer in courses for Italian secondary school science teachers.

- From October 2006 to Present. Supervisor and co-supervisor of bachelor, master and PhD thesis at the University of Pavia

SCIENCE EDUCATION AND OUTREACH

Since 2017, I deal with the dissemination of geological sciences with particular regard to activities with schools and teachers. The project of "Innovative Didactics of Geosciences" aims to provide a quality scientific education, inclusive and stimulating in the STEM area in compliance with the objective #4 (target 4.7) of the ONU Agenda 2030. Since 2018 Co-organizer with Corrado Delbò (University of Milan) of the stage in Pavia of

the National Festival of Responsible Tourism – IT.A.CÁ; since 2020 technical scientific member of the National committee of IT.A.CÁ

AFFILIATIONS:

International Nannoplankton Association (INA) Società Geologica Italiana (SGI Italian Geological Society)

CROSS-CULTURAL ADAPTABILITY AND FLEXIBILITY

During my previous residence abroad, I really appreciated meeting people of different cultures and, everywhere I was, I made precious new friendships and scientific collaborations.