

PAOLO MONTAGNA

Paolo Montagna is a Research Director at the Institute of Polar Sciences (ISP-CNR) in Bologna with interests in the geochemistry of biogenic carbonates for palaeoclimate reconstructions and biomineralization studies. He obtained his PhD in Earth Sciences from the University of Padova (Italy) in collaboration with the Australian National University. He was awarded a three year post-doctoral Marie Curie International Outgoing Fellowship, for which he spent two years at Lamont-Doherty Earth Observatory at Columbia University and one year at the Laboratoire des Sciences du Climat et de l'Environnement in Gif-sur-Yvette. His research focuses on the development and application of geochemical proxies to address fundamental problems in paleoceanography and to improve our understanding of the calcification mechanisms in biogenic carbonates. This includes the analysis of minor and trace elements, as well as stable ($^{11}\text{B}/^{10}\text{B}$) and radiogenic ($^{143}\text{Nd}/^{144}\text{Nd}$, $^{87}\text{Sr}/^{86}\text{Sr}$, $^{230}\text{Th}/\text{U}$) isotopes in shallow and deep-water coral skeletons. He has participated in 20 oceanographic missions to the Mediterranean Sea, Atlantic, Indian and Pacific Oceans, as well as the Ross Sea off Antarctica. He has also been involved in several SCUBA diving expeditions worldwide.



Primary Affiliation:
Institute of Polar Sciences
National Research Council
Via Gobetti 101, 40129 Bologna (Italy)
paolo.montagna@cnr.it
Tel. +39 051-6398913

Secondary Affiliation:
Lamont-Doherty Earth Observatory
Columbia University
61 Route 9W, Palisades, NY (USA)

Selected publications

1. **Montagna P.**, Colin C., Frank M., Störling T., Tanhua T., Rijkenberg M., Taviani M., Schroeder K., Chiggiato J., Gao G., Dapoigny A., Goldstein S. (2022). Dissolved neodymium isotopes in the Mediterranean Sea. *Geochimica et Cosmochimica Acta*, 322, 143-169.
2. **Montagna P.**, McCulloch M., Douville E., López Correa M., Trotter J., Rodolfo-Metalpa R., Dissard D., Ferrier-Pagès C., Frank N., Freiwald A., Goldstein S., Mazzoli C., Reynaud S., Rüggeberg A., Russo S., Taviani M. (2014). Li/Mg systematics in scleractinian corals: calibration of the thermometer. *Geochimica et Cosmochimica Acta*, 132, 288-310.
3. McCulloch M., Falter J., Trotter J., **Montagna P.** (2012). Coral resilience to ocean acidification and global warming through pH up-regulation. *Nature Climate Change* 2, 623-627.
4. **Montagna P.**, McCulloch M., Mazzoli C., Silenzi S. and Odorico R. (2007). The non-tropical coral *Cladocora caespitosa* as the new climate archive for the Mediterranean Sea: high-resolution (~ weekly) trace element systematics. *Quaternary Science Review*, 26, 441-462.
5. **Montagna P.**, McCulloch M., Taviani M., Mazzoli C. and Vendrell B. (2006). Phosphorus in cold-water corals as a proxy for seawater nutrient chemistry. *Science*, 312, 1788-1791.