

RESEARCH INTERESTS

My research focuses on the development and application of geochemical proxies for paleoclimate reconstructions on a variety of timescale and aims to address some of the fundamental aspects of the calcification mechanisms in corals. In particular, my research on modern corals has led to a greater understanding of the likely responses of corals to future ocean acidification and climate change. A major focus of my research is to test new high-resolution marine archives for developing long and continuous climate records, mainly for the Mediterranean and Caribbean Sea and the Southern Ocean. By combining various types of geochemical proxies, from trace elements to stable and radiogenic isotopes on coral skeletons, I try to assess the potential impacts of anthropogenic activity on the ocean climate system.

I actively contributed to the development and improvement of $^{230}\text{Th}/\text{U}$ dating technique and $^{87}\text{Sr}/^{86}\text{Sr}$ using the multi-collector ICPMS Neptune^{Plus}, $^{143}\text{Nd}/^{144}\text{Nd}$ ratios in biogenic carbonates for water mass provenance and $^{11}\text{B}/^{10}\text{B}$ in corals for pH reconstructions as well as the understanding of biomineralization mechanisms.



PAOLO MONTAGNA

Born in Montecchio Maggiore
(VI – Italy), 22-03-1975

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Via dell'Inferno 22
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Primary Affiliation:
Institute of Polar Sciences
National Research Council
Via Gobetti 101, 40129 Bologna (Italy)
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Secondary Affiliation:
LDEO-Columbia University
61 Route 9W, Palisades, NY (USA)

EDUCATION

04/02/2005: Doctor of Philosophy (PhD) in Earth Sciences
(European Doctorate Label), University of Padova, Italy.

April 2004 - June 2004: Visiting student (part of doctoral research),
Universitat de Barcelona, Spain.

April 2003 - March 2004: Visiting student (part of doctoral research),
Australian National University, Canberra, Australia.

2000 - 2002: Visiting Student,
Central Institute for Marine Research, Rome, Italy.

1999: Laurea Degree (5 years program = B.S. + M.S.) in Earth Sciences
(*summa cum laude*), University of Padova, Italy.

PhD thesis dissertation:

«*Petrographic, Geochemical and Isotopic analysis in live and fossil coral skeletons and speleothems for paleoclimate reconstructions and environmental monitoring in the Mediterranean Region*»

APPOINTMENTS

November 2019 – present: Senior Research Scientist
Institute of Polar Sciences - CNR, Bologna

December 2011 – October 2019: Research Scientist
Institute of Marine Sciences - CNR, Bologna

March 2011 – November 2011: Research Engineer (Marie Curie Fellow)
LSCE/CEA, Gif-sur-Yvette, France

March 2011 - present: Adjunct Associate Research Scientist
Lamont-Doherty Earth Observatory (Columbia University)

February 2009 – February 2011: Visiting Associate Research Scientist (Marie Curie Fellow),
Lamont-Doherty Earth Observatory (Columbia University)

February 2007 - January 2009: Research Fellow
Central Institute for Marine Research, Rome, Italy

2005 - 2007: Post-doctoral Fellow
Central Institute for Marine Research, Rome, Italy

SCHOLARSHIPS, GRANTS AND AWARDS

- Dec 2017** National (Italian) Scientific Qualification as Associate Professor.
- Nov 2015** CNR Short-term Mobility Grant (University of Western Australia).
- Apr 2015** Invited Visiting Professor at Paris-Sud University (Orsay, France).
- Apr 2014** Invited Visiting Professor at Paris-Sud University (Orsay, France).
- Jun 2013** CNR Short-term Mobility Grant (LSCE, France).
- Nov 2012** Oceans Institute Visitors Program -2012 (University of Western Australia).
- 2009 - 2012** Marie Curie International outgoing Fellowship grant (IOF) – 2009-2011: Lamont- Doherty Earth Observatory of Columbia University (NY, USA); 2011-2012: Laboratoire des Sciences du Climat et de l'environnement (Gif-sur-Yvette, France).
- 2007** School on X-ray Imaging Techniques at the European Synchrotron Radiation Facility. Grenoble (5-6 February 2007).
- 2004 - 2005** Marie Curie scholarships to attend five PROPER (Proxies in Paleoclimatology) courses: Amsterdam, Bremen and Texel (3-12 June 2004); Barcelona (8-12 September 2004); Southampton (1-6 April 2005); Bratislava (7-14 October 2005); Gif sur Yvette (28 Nov. -3 Dec 2005).
- 2003 - 2004** “Aldo Gini” Foundation scholarship to undertake research at the Australian Institute of Marine Science (Townsville, Australia) and at the Australian National University (Canberra, Australia).
- 2003 - 2004** “Ermenegildo Zegna” Foundation Research Grant to undertake research at the Australian Institute of Marine Science (Townsville, Australia) and at the Australian National University (Canberra, Australia).
- 2003 - 2004** SIMP (Italian Society for Mineralogy and Petrology) Travel Grant.
- 1999 - 2000** Geographic Information Systems Project Scholarship, Istituto Universitario di Architettura di Venezia (IUAV), Venice, Italy.
- 1997 - 1998** Erasmus scholarship (6 months) at the Dept. of Geological Sciences, University of Barcelona, Spain.
- 1998** Erasmus Award, for completion of 3 exams at the University of Barcelona, Spain.

ADVANCED POST-GRADUATE SHORT COURSES AND RESEARCH EXPERIENCES

- Jun 2016 - Aug 2018** Sabbatical research leave at LSCE (Gif-sur-Yvette).
- 1 Nov - 10 Dec 2015** Research activity at the University of Western Australia.
- 02 - 23 Dec 2013** Research activity at the University of Western Australia.
- 25 May - 7 Jun 2009** Research activity at the Research School of Earth Sciences (Canberra).
- 13 - 30 Nov 2008** Research activity at the Research School of Earth Sciences (Canberra).
- 17 - 27 Sep 2008** First MedCLIVAR-ESF Summer School (Rhodes).
- 13 May - 25 Jun 2007** Research activity at the Research School of Earth Sciences (Canberra).
- Dec 2006** Research activity at the European Synchrotron Radiation Facility (Grenoble).
- 15 May - 9 Jun 2006** Research activity at the Research School of Earth Sciences (Canberra).
- 28 Nov - 3 Dec 2005** PROPER course 5: Rapid climate change: data and models (Gif-sur-Yvette).
- 7 - 14 Oct 2005** PROPER course 4: Orbital forcing: data and models (Bratislava).
- 7 May - 2 Jun 2005** Research activity at the Research School of Earth Sciences (Canberra).
- 1 - 6 Apr 2005** PROPER course 3: Proxies in Paleoclimatology (Southampton).
- 8 - 12 Sep 2004** PROPER course 2: Proxies in Paleoclimatology (Barcelona).
- 3 - 12 Jun 2004** PROPER course 1: Proxies in Paleoclimatology (Amsterdam, Bremen and Texel).
- 12 May - 27 Jun 2004** Research activity at the University of Barcelona (Barcelona).
- Apr 2003 - Mar 2004** Research activity at the Research School of Earth Sciences (Canberra).

OCEANOGRAPHIC CRUISES AND FIELD EXPEDITIONS

26 Jan - 14 Feb 2020	FK200126 oceanographic cruise on board Research Vessel Falkor in the canyon of Bremer (Australia). Cruise funded by the Schmidt Ocean Institute based on competitive selection of proposals (co-chief scientist).
4 - 18 Apr 2019	ILES EPARSEs oceanographic cruise aboard Research Vessel Marion Dufresne in the Scattered Islands (Mozambique Channel). Person in charge of the coral core sampling by SCUBA diving.
5 - 15 Nov 2017	Sampling campaign for tropical corals by SCUBA diving in Mahahual (Mexico).
4 - 14 Jun 2017	Sampling campaign for tropical corals by SCUBA diving in Puerto Morelos (Mexico).
19 - 25 Feb 2017	Sampling campaign for tropical corals by SCUBA diving in Cienfuegos (Cuba).
27 Feb - 12 Mar 2015	FK150301 oceanographic cruise aboard Research Vessel Falkor in the canyon of Perth (Australia). Cruise funded by the Schmidt Ocean Institute (https://schmidtocean.org/) based on competitive selection of proposals.
14 - 24 Mar 2014	COCOMAP14 oceanographic cruise aboard Research Vessel Urania in the Southern Adriatic Sea (Albania-Greece).
26 Dec 2013 - 26 Feb 2014	Antarctic expedition (Terra Nova Bay). Carbonate and seawater sampling under the umbrella of the GEOSMART project.
11 - 25 Nov 2013	RECORD oceanographic cruise aboard Research Vessel Urania in the Central Mediterranean Sea (chief-scientist).
25 Jul - 12 Aug 2013	GeotracesMedBlackSeas oceanographic cruise aboard Research Vessel Pelagia (from Istanbul to Lisbon).
28 Dec 2012 - 10 Jan 2013	ALTRO oceanographic cruise aboard Research Vessel Urania in the Southern Adriatic Sea (Montenegro).
10 Jun - 8 Jul 2012	ICE-CTD oceanographic cruise aboard Research Vessel Thalassa in the Atlantic Ocean (Brest-Reykjavich, Ponta Delgada) (co-chief scientist).
2 - 10 Aug 2011	DECORS oceanographic cruise aboard Research Vessel Urania in the Strait of Sicily.
3 - 28 Apr 2011	M 84/3 oceanographic cruise aboard Research Vessel Meteor in the Mediterranean Sea and Atlantic Ocean (from Istanbul to Vigo).
22 Mar - 8 Apr 2010	ARCADIA oceanographic cruise aboard Research Vessel Urania in the Adriatic Sea.
10 - 23 Dec 2009	MEDCOR oceanographic cruise aboard Research Vessel Urania in the Strait of Sicily.
6 - 19 Apr 2007	MARCOS oceanographic cruise aboard Research Vessel Urania in the Central Mediterranean Sea.
28 Sep - 5 Oct 2005	APLABES oceanographic cruise aboard Research Vessel Universitatis in the Ionian Sea.
24 Aug - 8 Sep 2005	GECO oceanographic cruise aboard Research Vessel Urania in the Eastern Mediterranean Sea.
6 - 22 Apr 2004	COBAS oceanographic cruise aboard Research Vessel Urania in the Western Mediterranean Sea.

SYNERGISTIC ACTIVITIES

REVIEWER FOR:

Scientific Reports, Geology, Geochimica et Cosmochimica Acta, Quaternary Science Reviews, Paleoceanography, Earth and Planetary Science Letters, Chemical Geology, Palaeo³, Journal of Geophysical Research, Geophysical Research Letters, G³, Deep-Sea Research II, Coral Reefs, Bulletin of Marine Science, Scientia Marina, Chemistry and Ecology, Facies, Geo-Marine Letters, Marine Ecology, Marine Geology, Marine Chemistry, Rapid Communications in Mass Spectrometry, Journal of Quaternary Science, Limnology and Oceanography, European Journal of Mineralogy, SPRINGER Book Chapter.

PROPOSAL REVIEWER:

- ANR (France) (2015, 2019)
- CNRS/INSU (France) (2012, 2017)
- CNR Cruise proposal (2012)
- Czech Science Foundation (2020)
- DFG (Germany) (2014, 2018)
- ERC Advanced Grant (2019)
- EUROFLEET PLUS (2020)
- FONDECYT (Chile) (2012)
- Italian Programme for recruitment of young researcher (Italy) (2017)
- ISF (Israel) (2016)
- NSERC (Canada) (2013)
- NSF (USA) (2006-2011, 2014-2017, 2019)
- SCOR WG (2016)
- Swiss National Science Foundation Eccellenza Professional Fellowship (2020)

EDITORIAL BOARD:

- *Minerals*
- *Oceans*
- *Alpine and Mediterranean Quaternary*

PROJECT COORDINATOR:

- **2006-2008 MedMarker** (Geochemical and isotopic study of marine bio-indicators from archaeological sites: a new tool for natural vs. anthropogenic climate variability reconstruction in the Mediterranean Sea), funded by “Ermenegildo Zegna” Foundation (150,000 Euros).
- **2008 European Synchrotron Radiation Facility** (Geochemical investigation in shallow- and cold-water corals from the Mediterranean Sea for paleoclimate and paleoenvironmental reconstructions).
- **2009-2011 MEDAT-ARCHIVES** (Mediterranean climate evolution and connection with the Atlantic Ocean: inferences from high-resolution marine archives), funded by the Marie Curie Program (239,000 Euros).
- **2012-2017 COFIMED** (Coral and Foram Investigation in the Mediterranean Sea), funded by MISTRALS (120,000 Euros). Co-responsible.
- **2013-2014 TEGNUE** (Geochemical and petrographic investigation of bioconstructions in the Northern Adriatic Sea), funded by Chioggia municipality (30,000 Euros).
- **2013-2016 GEOSMART** (Geochemical signatures in the Antarctic marine carbonate system: present, past and future implications), funded by the Italian Program for Antarctic Research (145,000 Euros; ranked first in the list of selected projects).
- **2014-2016 BITES** (Boron isotopes and Trace elements in Mediterranean coral skeletons and coccolithophorid calcite: Tools to reconstruct the evolution of pH and seawater temperature), funded by ENVI-MED MISTRALS (18,000 Euros).
- **2016-2018 RLA/7/020** (Establishing the Caribbean Observing Network for Ocean Acidification), funded by IAEA. Co-responsible for geochemical analyses in corals (75,000 Euros).
- **2017-2020 GRACEFUL** (Geochemical signals in Antarctic Biogenic Carbonates for Paleoceanographic Reconstruction), funded by the Italian Program for Antarctic Research (127,500 Euros; ranked first in the list of selected projects).
- **2017-2018 CNR-CONACYT** Italy-Mexico bilateral project on «Hermatypic corals as natural archives of climate changes in the Mexican Caribbean». (130,000 Euros; ranked first in the list of selected projects).

PARTICIPATION TO PROJECTS AS RESEARCH UNIT:

- **2018-2020 ICECLIMALIZERS** (Antarctic biomineralizers as proxies of climate change: in situ monitoring and transplantation experiment), funded by the Italian Program for Antarctic Research (104,400 Euros; PI: Chiara Lombardi ENEA-La Spezia, Italy).

- **2020-2022 BIOROSS** (Bioconstructional organisms from the Ross Sea under Climate Change: ecosystems and 'oasis' of biodiversity to monitor and protect), funded by the Italian Program for Antarctic Research (126,100 Euros; PI: Chiara Lombardi ENEA-La Spezia, Italy).
- **2021-2023 Deep-sea coral records of Southern Ocean climate and nutrient dynamics**, funded by the Australian Research Council (455,000 AU\$; PI: Malcolm McCulloch, University of Western Australia).

PhD THESIS CO-SUPERVISOR:

- Mr Daniele Giardino, PhD candidate, University of Padova, January 2006 – January 2009
- Mr. Diego Kersting, PhD candidate, University of Barcelona, Dec. 2006 – Dec. 2009
- Mrs. Arianna Trevisiol, PhD candidate, University of Padova, Dec. 2008 – Dec. 2011
- Mrs Sonia Chaabane, PhD candidate, University of Sfax, 2012 – 2016
- Mr Serguei Rico-Esenaro, PhD candidate, Universidad Nacional Autónoma de México, May 2015 – Present
- Mr Kristan Cuny, PhD candidate, Université de Versailles Saint-Quentin-en-Yvelines, Sept 2016 – Present
- Mr Miguel Gómez Batista, PhD candidate, Universidad de La Habana (Cuba), Oct 2016 – Present

MASTER DEGREE THESIS CO-SUPERVISOR:

- Mr Gabriele Guerrini, University of Siena, 2014
- Mr Vincenzo Ricca, University of Bologna, 2015
- Mr Simone Moretti, University of Bologna, 2015
- Mrs Cénina Camalcanane, LSCE, 2017 (M2 student)

INSTITUTIONAL DUTIES:

- Person in charge for CNR of the Activity Task «Impact of Ocean Acidification on benthic communities» (Task 6.13) within the EU Marine Strategy Framework Directive.
- Person in charge of the rock-sediment preparation lab at ISMAR-CNR, Bologna (2013-2016)
- Responsible for organizing Seminars&Talks at ISMAR-CNR, Bologna (2013-2016)
- Deputy coordinator of the Italian working group on Paleoclimate studies (2018-present)
- GEOTRACES National representative (2019-present)
- Member of the Working Group «Communication» of the Institute of Polar Sciences (2019-present)
- Member of the «Communication» Committee of the CNR Research Area in Bologna (2020-present)

CONVENER AT INTERNATIONAL CONGRESSES:

- Session: «Relative sea-level changes in the coastal and underwater area based on geomorphological, sedimentological and biological markers» at the GeoSub International Congress, 13-14 October 2015, Trieste (Italy).
- Session 10.a: «Geochemical Proxies in Marine Biogenic Carbonates: New Developments and Applications to Global Change» (co-convener: Eric Douville, LSCE) at the Goldschmidt 2017, Paris.
- Session: «Coral skeletons as tracers of biomineralization and paleoenvironments» (co-convener: Stefano Goffredo, University of Bologna) at the 13th International Symposium on Fossil Cnidaria and Porifera, 3-6 September 2019, Modena (Italy).

CONFERENCE AND WORKSHOP ORGANISING COMMITTEE:

- Workshop on the «Climate dynamics during the last glacial-interglacial cycle» (Bologna, 17-18 June 2019).

GUEST EDITOR:

- Guest editor for Chemical Geology, special issue «Geochemical proxies in marine biogenic carbonates: new developments and applications to global change» (2018-2019).
- Guest editor for Journal of Marine Science and Engineering, special issue «Submarine karst environment: physical, chemical and geo-biological aspects» (2020-2021).

TEACHING EXPERIENCES:

Short courses given at the University of Bologna, Université de Paris-Sud, IAEA Programme (Puerto Morelos, Mexico and Cienfuegos, Cuba).

COURSES:

Served as IAEA expert during the Regional Training course on the «*Evaluation of ocean acidification on coastal ecosystems, sampling strategy and analysis*» (Puerto Morelos, Mexico, March 2015), «*Coral cutting and sampling for geochemical investigations*» (Cienfuegos, Cuba, November 2016), «*Coral cores collection for Ocean Acidification*» (Cienfuegos, Cuba, February 2017) and «*Use of Nuclear Techniques in Marine Environment*» (Cienfuegos, Cuba, November 2018)

EXTERNAL EXAMINER:

External PhD examiner, Francisco J. Jiménez Espejo, Instituto Andaluz de Ciencias de la Tierra and Universidad de Granada), Spain, 2006

External PhD examiner, Sergio Silenzi, Università La Sapienza, Italy, 2011

External PhD jury member, Qiong Wu, Université Paris-Sud, France, 2014

External PhD jury member, Mohamed Ayache, Université Paris-Saclay, France, 2016

External PhD jury member, Sonia Chaabane, University of Sfax, Tunisia, 2017

External PhD jury member, Nina Delebecque, Université de Bretagne Occidentale, Brest, France, 2017

External PhD jury member, Laurine Drugat, Université Paris-Saclay, Saint-Aubin, France, 2018

OUTREACH ACTIVITY:

Co-direction of 3 documentaries on climate change (MedArchives, T Med and Boiling Sea) and contribution to the realization of the documentary “The Boiling Sea”, directed by Eugenio Manghi and released in 2012. This documentary, which presents the consequences of climate changes in the Mediterranean Sea, has won the prize “Film di interesse nazionale” from the Ministry of Culture in Italy and it has been projected in 600 Cinéma d’art et essai in Italy.

Intense outreach activity, comprehensive of TV and radio interviews, exhibitions and open houses at National and International (USA, Australia, France) level.

Scientific articles for: Le Scienze, Heos.it, AQUA Ecologia, Nimbus, Bollettino Australasia.

PUBLICATIONS

Citation metrics

h-index: 28

i10-index: 44

Total number of citations: 3071

Source: *Google Scholar citations* (<https://scholar.google.com/citations?user=Weuc4dUAAAAJ&hl=en>) (16 September 2020)

ResearcherID: <http://www.researcherid.com/rid/H-9632-2015>

ORCID code: 0000-0001-5598-2214

2020

74. Duhamel M., Colin C., Revel M., Siani G., Dapoigny A., Douville E., Wu J., Zhao Y., Liu Z., **Montagna P.** (2020). Variations in eastern Mediterranean hydrology during the last climatic cycle as inferred from neodymium isotopes in foraminifera. *Quaternary Science Reviews*, 237, 106306. <https://doi.org/10.1016/j.quascirev.2020.106306>.
75. Amitai Y., Yam R., **Montagna P.**, Devoti S., Lopez Correa M., Shemesh A. (2020). Spatial and temporal variability in Mediterranean climate over the last millennium from vermetid isotope records and CMIP5/PMIP3 models. *Global and Planetary Change*, 189, 103159. <https://doi.org/10.1016/j.gloplacha.2020.103159>.

76. **Montagna P.** and Douville E. (2020). Geochemical proxies in marine biogenic carbonates: New developments and applications to global change. *Chemical Geology*, 533, 119411. <https://doi.org/10.1016/j.chemgeo.2019.119411>.
77. Sisma-Ventura G., Antonioli F., Silenzi S., Devoti S., **Montagna P.**, Chemello R., Shemesh A., Yam R., Gehrels R., Dean S., Rilov G., Sivan D. (2020). Assessing Vermetid reefs as indicators of past sea-levels in the Mediterranean. *Marine Geology*, 429, 106313.
78. Angeletti L., Castellan G., **Montagna P.**, Remia A., Taviani M. (2020). The «Corsica Channel cold-water coral Province» (Mediterranean Sea). *Frontiers in Marine Science*, 7:661, doi: 10.3389/fmars.2020.00661.
79. Pace B., Valentini A., Ferranti L., Vasta M., Vassallo M., **Montagna P.**, Colella A., Pons-Branchu E. (2020). A large paleoearthquake in Central Apennines, Italy, recorded by the collapse of a massive cave speleothem. *Tectonics*, <https://doi.org/10.1029/2020TC006289>.

2019

59. Montagna P. and Taviani M. (2019). 11 Mediterranean cold-water corals as paleoclimate archives. In: Orejas & Jiménez (eds). *Mediterranean Cold-Water Corals: Past, Present and Future. Coral Reefs of the World*, vol. 9 Springer, Cham. https://doi.org/10.1007/978-3-319-91608-8_11
60. Morrison R., Waldner A., Hathorne E.C., Rahlf P., Zieringer M., **Montagna P.**, Colin C., Frank N., Frank M. (2019). Limited influence of basalt weathering inputs on the seawater neodymium isotope composition of the northern Iceland Basin. *Chemical Geology*, 511, 358-370.
61. Ferranti L., Pace B., Valentini A., **Montagna P.**, Pons-Branchu E., Tisnerat-Laborde N., Maschio L. (2019). Speleoseismological constraints on ground shaking threshold and seismogenic sources in the Pollino Range (Calabria, Southern Italy). *Journal of Geophysical Research: Solid Earth*, in press.
62. Rico-Esenaro S., Sanchez-Cabeza J.A., Carricart-Gaviniet J.P., **Montagna P.**, Ruiz-Fernandez A.C. (2019). Uncertainty and variability of extension rate, density and calcification rate of a hermatypic coral (*Orbicella faveolata*). *Science of the Total Environment*, 650, 1576-1581.
63. Taviani M., Angeletti L., Cardone F., **Montagna P.**, Danovaro R. (2019). A unique and threatened deep water coral-bivalve biotope new to the Mediterranean Sea offshore the Naples megalopolis. *Scientific Reports*, 9, 3411.
64. Isola I., Ribolini A., Zanchetta G., Bini M., Regattieri E., Drysdale R., Hellstrom J., Bajo P., **Montagna P.**, Pons-Branchu E. (2019). Speleothem U/Th age constraints for the Last Glacial conditions in the Apuan Alps, northwestern Italy. *Paleogeography, paleoclimatology, paleoecology*, 518, 62-71.
65. Trotter J., Pattiaratchi C., **Montagna P.**, Taviani M., Falter J., Thresher R., Hosie A., Haig D., Foglini F., Hua Q., McCulloch M. (2019). First ROV exploration of the Perth Canyon: Canyon setting, faunal observations, and anthropogenic impacts. *Frontiers in Marine Science* doi.org/10.3389/fmars.2019.00173.
66. Cuny-Guirriec K., Douville E., Reynaud S., Allemand D., Bordier L., Canesi M., Mazzoli C., Taviani M., Canese S., McCulloch M., Trotter J., Rico-Esenaro S., Sanchez-Cabeza J-A., Ruiz-Fernández A., Carricart-Ganivet J., Scott P., Sadekov A., **Montagna P.** (2019). Coral Li/Mg thermometry: Caveats and constraints. *Chemical Geology*, 523, 162-178.
67. Taviani M., Angeletti L., Foglini F., Corselli C., Nasto I., Pons-Branchu E. **Montagna P.** (2019). U/Th dating records of cold-water coral colonization in submarine canyons and adjacent sectors of the southern Adriatic Sea since the Last Glacial Maximum. *Progress in Oceanography*, 175, 300-308.
68. Columbu A., Drysdale R., Hellstrom J., Woodhead J., Cheng H., Hua Q., Zhao J. **Montagna P.**, Pons-Branchu E., Edwards R.L. (2019). U-Th and radiocarbon dating of calcite speleothems from gypsum caves (Emilia Romagna, North Italy). *Quaternary Geochronology*, 52, 51-62.
69. Chaabane S., Lopez Correa M., Ziveri P., Trotter J., Douville E., McCulloch M., Taviani M., Linares C., **Montagna P.** (2019). Elemental systematics of the calcitic skeleton of *Corallium rubrum* and implications for the Mg/Ca temperature proxy. *Chemical Geology*, 524, 237-258.
70. Castellan G., Angeletti L., Taviani M., **Montagna P.**, (2019). The yellow coral *Dendrophyllia cornigera* in a Warming Ocean. *Frontiers in Marine Science* 6:692. doi:10.3389/fmars.2019.00692.
71. Wall M., Prada F., Fietzke J., Caroselli E., Dubinsky Z., Brizi L., Fantazzini P., Franzellitti S., Mass T., **Montagna P.**, Falini G., Goffredo S. (2019). Linking internatal carbonate chemistry regulation and calcification in corals growing at a Mediterranean CO₂ vent. *Frontiers in Marine Science* 6:699. doi:10.3389/fmars.2019.00699.
72. Taviani M., Vertino A., Angeletti L., **Montagna P.** Remia A. (2019). 2 Paleocology of Mediterranean cold-water corals. In: Orejas & Jiménez (eds). *Mediterranean Cold-Water Corals: Past, Present and Future. Coral Reefs of the World*, vol. 9 Springer, Cham. https://doi.org/10.1007/978-3-319-91608-8_2
73. Taviani M., **Montagna P.**, Rasul N., Angeletti L., Bosworth W. (2019). Pleistocene coral reef terraces

on the Saudi Arabian Side of the Gulf of Aqaba, Red Sea. In: Rasul N., Stewart I. (eds) Geological settings, paleoenvironmental and archaeology of the Red Sea. Springer, Cham.

https://doi.org/10.1007/978-3-319-99408-6_16

2018

55. Trotter J., Pattiaratchi C., **Montagna P.**, Taviani M., Falter J., Thresher R., Hosie A., Haig D., Foglini F., Hua Q., McCulloch M. Unveiling the Perth Canyon and its deep-water faunas. Biogeosciences Discussion, doi.org/10.5194/bg-2018-319.
56. Franchi F., Bergamasco A., Da Lio C., Donnici S., Mazzoli C., **Montagna P.**, Taviani M., Tosi L., Zecchin M. (2018). Petrographic and geochemical characterization of the early formative stages of Northern Adriatic shelf rocky buildups. Marine and Petroleum Geology, 91, 321-337.
57. Marchitto T., Bryan S., Doss W., McCulloch M., **Montagna P.** (2018). A simple biomineralization model to explain Li, Mg, and Sr incorporation into aragonitic foraminifera and corals. Earth and Planetary Science Letters, 481, 20-29.
58. McCulloch M., D'Olivo J.P., Falter J., Georgiou L., Holcomb M., **Montagna P.**, Trotter J. (2018). Opening Pandora's Box: Boron isotopic systematics in Scleractinian corals. Chapter for Springer book (in press).

2017

45. Reghizzi M., Gennari R., Lugli S., Manzi V., Roveri M., **Montagna P.**, Douville E., Taviani M., Sierro J.F. (2017). Isotope stratigraphy ($^{87}\text{Sr}/^{86}\text{Sr}$, $\delta^{18}\text{O}$, $\delta^{13}\text{C}$) of the Sorbas Basin (Betic Cordillera, Spain): Paleooceanographic evolution across the onset of the Messinian salinity crisis. Paleo³, 469, 60-73.
46. Dubois-Dauphin Q., **Montagna P.**, Siani G., Douville E., Wienberg C., Hebbeln D., Taviani M., Zhifei L., Kallel N., Pons-Branchu E., Colin C. (2017). Past hydrological variations of the intermediate water masses of the western Mediterranean Sea during the past 20 ka inferred from neodymium isotopic composition in foraminifera and cold-water corals. Climate of the Past, 13, 17-37.
47. Bosworth B., **Montagna P.**, Pons-Branchu E., Rasul N., Taviani M. (2017). Potentially destructive earthquakes in the Gulf of Aqaba are predicted by anomalously uplifted Late Pleistocene Coral Terraces. Scientific Reports, 7, doi:10.1038/s41598-017-00074-2.
48. Tesi T., Asioli A., Dalla Valle G., Maselli V., Gamberi F., Langone L., Cattaneo A., **Montagna P.**, Trincardi F. (2017). Weakening of the Levantine Intermediate Water as the predominant control of Sapropel S1 formation in the Mediterranean Sea. Quaternary Science Reviews, 159, 139-154.
49. Ayache M., Dutay J.C., Mouchet A., Tisnérat-Laborde N., **Montagna P.**, Tanhua T., Siani G., Jean-Baptiste P. (2017). High resolution regional modeling of natural and anthropogenic radiocarbon in the Mediterranean Sea. Biogeosciences, 14, 1197-1213.
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