

ANNE L. COHEN

ASSOCIATE SCIENTIST WITH TENURE

ADDRESS Clark Laboratory 118 and Office 118A, Department of Geology and Geophysics,
Woods Hole Oceanographic Institution, Woods Hole, MA, 02543, USA

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RESEARCH AREAS

Climate Change, Calcification, Coral Reefs, Ocean Acidification,
Paleoceanography, Geochemistry of Biominerals

EDUCATION

PhD (December, 1993) University of Cape Town, South Africa

B.S. Honors (1988) University of Cape Town

B.S. (1987) University of Cape Town (Marine Biology, Archaeology; minor in
Oceanography)

PhD Thesis Title: “A Holocene Sea Surface Temperature Record in Mollusc Shells from the
Coast of Southern Africa”

PhD Thesis Advisors: Professor Nikolaas van der Merwe, Peabody Museum, Harvard
University and Archaeometry Laboratory, UCT and Professor George Branch, Department of
Zoology, UCT

PROFESSIONAL HISTORY

2011- : Associate Scientist with Tenure, WHOI

2004-2011: Research Specialist, WHOI

1999-2004: Research Associate III, WHOI

1996-1998: Post-Doctoral Investigator, Boston University Marine Program

1994-1995: Post-Doctoral Fellow, WHOI

MEDALS AND AWARDS

1997: Oliver Davies Medal (for outstanding contributions from a young South African scientist)

CURRENT LAB GROUP

RESEARCH ASSISTANT/LAB MANAGER

- Kathryn Rose – Research Associate 2

POST-DOCS AND GRADUATE STUDENTS

- Kathryn Shamberger (WHOI Post-Doctoral Fellow: 2011-2013)
- Elizabeth Drenkard (MIT-WHOI Joint Program in Oceanography: 2009-2014)
- Hannah Barkley (MIT-WHOI Joint Program in Oceanography: 2011-2016)
- Alice Alpert (MIT-WHOI Joint Program in Oceanography: 2011-2016)
- Thomas deCarlo (MIT-WHOI Joint Program in Oceanography: 2012-2017)
- Hanny Rivera (MIT-WHOI Joint Program in Oceanography: 2013-2018)

PRIOR POST-DOCS AND GRADUATE STUDENTS

- Neal Cantin, WHOI Post-Doctoral Investigator (2008-2011)
- Justin Ries, WHOI Post-Doctoral Fellow (2006-2008)
- Rinat Gabitov, WHOI-RPI Post-Doctoral Fellow (2005-2006)

- Michael Holcomb, PhD. MIT-WHOI Joint Program in Oceanography (2004-2009)
- Casey Saenger, PhD. MIT-WHOI Joint Program in Oceanography (2004-2009)
- Sara Bosshart Msc. MIT-WHOI Joint Program in Oceanography: (2010-2012)

SUMMER/WINTER FELLOW AND INTERNS

- 2013: Jacqueline Grey (Summer Student Fellow, St Lawrence University)
- 2012: Chris Kelly (Summer Student Fellow, Lafayette College)
- 2012: Akemi Berry (Winter Fellow, Oberlin College)
- 2012: Gail Schwietermann (Winter Fellow, Oberlin College)
- 2011: Alice Zicht (Winter Fellow, Oberlin College)
- 2011: Thomas deCarlo (Summer Student Fellow, University of San Diego)
- 2011: Alyssa McKenna (Summer Student Fellow, Mount Holyoke: advised jointly with Hanu Sing AOPE)
- 2009: Melissa Pinard (Summer Student Fellow, Morgan State University)
- 2007: David Spofforth, National Oceanography Center, Southampton (WHOI-NOC exchange student)
- 2006: Nicholas Jachowski (Summer Student Fellow SSF, University of Stanford)
- 2003: Nicole Nichols, (Summer Student Fellow, University of Massachusetts: advised jointly with Hanu Sing AOPE)

GUEST/HIGH SCHOOL STUDENTS

- 02/2013: Quinn Cobban, Falmouth Academy (Science Fair Project)
- 09/2012: Raisa Hernandez Pacheco, University of Puerto Rico (PhD research)
- 01/2012: Victoria Morgan, SEA Student, Cornell University
- 03/2012: Elizabeth Derse-Crook, University of Santa Cruz (PhD research)
- 07-08/ 2012: Claire Gallagher, Princeton University (senior thesis research)
- 07-08/2012: Kascia White, Bermuda Institute of Ocean Sciences (senior thesis research)
- 01-12/2011: Luis Vásquez-Bedoya, UNAM, Mexico (PhD thesis research)
- 02/2008-02/2009: Ryan Petitt, Falmouth Academy (Science Fair Project)
- 07-08/2007: Alexandra Pogue (Whitman College)
- 07-08/ 2002: Kate Owens (University of Chicago)
- 07-08/2001: Jackie van Etten (Bridgewater State College)
- 07-08/2008: Emilia Sogin (Brown University)

THESIS COMMITTEES

- Meredith White (Biology)
- Meagan Gonneea (Chemistry)

PUBLISHED PAPERS *students and post-docs

- *Derse-Crook, E., **Cohen, A.L.**, Rebolledo-Vieyra, M., Hernandez, L., Paytan., A. (2013) Reduced calcification and lack of acclimatization by coral colonies growing in areas of persistent natural acidification. *PNAS*, 110(27), 11044-11049. doi/10.1073/pnas.1301589110.
- Wang Zhengrong, Glenn Gaetani, Chao Liu, **Anne Cohen**. (2013) Oxygen isotope fractionation between aragonite and seawater: Developing a novel kinetic oxygen isotope fractionation model, *Geochimica et Cosmochimica Acta*, Volume 117, 15 September 2013, Pages 232-251, ISSN 0016-7037, 10.1016/j.gca.2013.04.025. (<http://www.sciencedirect.com/science/article/pii/S0016703713002603>)
- *Kaplan MB, Mooney TA, McCorkle DC, **Cohen AL** (2013) Adverse Effects of Ocean Acidification on Early Development of Squid (*Doryteuthis pealeii*). *PLoS ONE* 8(5): e63714.

doi:10.1371/journal.pone.0063714

- *Drenkard, E., **Cohen, A.L.**, McCorkle D.C., de Putron S.J., Zicht, A., Starczak, V. (2013) The Impact of Heterotrophic Feeding on the Coral Calcification Response to Ocean Acidification. *Coral Reefs*, DOI 10.1007/s00338-013-1021-5
- Wang, Z; Hu, P; Gaetani, G; Liu, C; Saenger, C; **Cohen, A**; Hart, S. (2013) Experimental calibration of Mg isotope fractionation between aragonite and seawater. *Geochimica et Cosmochimica Acta* vol. 102 p. 113-123
- *White MM, McCorkle DC, Mullineaux LS, **Cohen AL** (2013) Early Exposure of Bay Scallops (*Argopecten irradians*) to High CO₂ Causes a Decrease in Larval Shell Growth. PLoS ONE 8(4): e61065. doi:10.1371/journal.pone.0061065
- *Holcomb, M., **Cohen, A.L.**, McCorkle, D.C. (2013) An evaluation of staining techniques for marking daily growth in scleractinian corals. *Journal of Experimental Marine Biology and Ecology*, 440(126 – 131)
- *Vásquez-Bedoya, L. F., **A. L. Cohen**, D. W. Oppo, and P. Blanchon (2012), Corals record persistent multidecadal SST variability in the Atlantic Warm Pool since 1775AD, *Paleoceanography*, doi:10.1029/2012PA002313.
- *Holcomb, M., **Cohen, A. L.**, and McCorkle, D. C. (2012) ,An investigation of the calcification response of the scleractinian coral *Astrangia poculata* to elevated pCO₂ and the effects of nutrients, zooxanthellae and gender, *Biogeosciences*, 9, 29-39, doi:10.5194/bg-9-29-2012.
- Karnauskas, K.B. and **Cohen, A.L.** (2012), Equatorial refuge amid tropical warming. *Nature Climate Change*, 2012; DOI: 10.1038/nclimate1499
- *Bednaršek, N, Tarling, GA, Bakker, DCE, Fielding, S, **Cohen, A**, Kuzirian, A, McCorkle, D, Lézé, B and Montagna, R (2012), Description and quantification of pteropod shell dissolution: a sensitive bioindicator of ocean acidification. *Global Change Biology*, 18 (7). pp. 2378-2388. ISSN 13541013
- De Putron S., McCorkle D.C., **Cohen A.L.** and Dillon, A. (2011). The impact of seawater saturation state and bicarbonate ion concentration on coral calcification, *Coral Reefs*, 30(2) 321-328, DOI: 10.1007/s00338-010-0697-z.
- Pandolfi, J.M., Connolly, S.R., Marshall, D.J., **Cohen A.L.**, (2011), Projecting coral reef futures under global warming and ocean acidification, *Science*, DOI:10.1126/science.1204794
- *Sayani H., Cobb K., **Cohen A.L.** , Crawford E., Nurhati I., Rose R., Zaunbrecher L (2011), Effects of Diagenesis on Paleoclimate Reconstructions from Modern and Young Fossil Corals, *Geochimica et Cosmochimica Acta*, 75 (21) 6361-6373
- Gaetani G.A., **Cohen A.L.**, Wang Z.A. and Cruisius, J. (2011), A Rayleigh-based, multi-element approach to coral paleothermometry, *Geochimica et Cosmochimica Acta*, 75(7) 1920-1932.
- *Gabitov, R.I., Schmitt, A.K., Rosner, M., McKeegan, K.D., Gaetani, G.A., **Cohen, A.L.**, Watson, E.B., and Harrison T.M. (2011), In situ $\delta^7\text{Li}$, Li/Ca, and Mg/Ca analyses of synthetic aragonites, *Geochem. Geophys. Geosyst.*, 12, Q03001, doi:10.1029/2010GC003322.
- *Cantin N.C., **Cohen, A.L.**, Karnauskus K., Tarrant A.M, McCorkle D.C. (2010), Coral growth declines as temperatures rise in the central Red Sea, *Science*, 2010;329(5989):322-325
- Cohen A.L.** and Gaetani G.A. (2010), Ion Partitioning and the Geochemistry of Coral Skeletons: Solving the Mystery of the “Vital Effect”. IN: “*On partitioning in low temperature aqueous systems: from fundamentals to applications in climate proxies and environmental geochemistry*” Editors: Manolo Prieto and Heather Stoll, European Mineralogical Union, Notes in Mineralogy, Volume 10 Chapter 11, pp 377–397.
- *Ries J.B., **Cohen A.L.** and McCorkle D.C. (2010), The zooxanthellate temperate coral *Oculina arbuscula* exhibits a nonlinear calcification response to pCO₂-induced ocean acidification. *Coral Reefs*, DOI 10.1007/s00338-010-0632-3.

- *Holcomb M.C., McCorkle D.C., **Cohen A.L.** (2010), Long-term effects of nutrient and CO₂ enrichment on the temperate coral *Astrangia poculata* (Ellis and Solander 1786), *Journal of Experimental Marine Biology and Ecology*, 386 (2010) 27–33
- Cohen A.L.** and *Holcomb M.C (2009), “Why Corals Care about Ocean Acidification: Uncovering the Mechanism”. IN: *The Future of Ocean Biogeochemistry in a High CO₂ World*, Editors: Scott Doney, Victoria Fabry, Barney Balch and Richard Feely, *Oceanography*, 22(4).
- *Ries J.B., **Cohen A.L.** and McCorkle D.C. (2009), Marine calcifiers exhibit mixed responses to CO₂-induced ocean acidification. *Geology*, no. 12; p. 1131–1134; doi: 10.1130/G30210A.
- Cohen A.L.**, McCorkle D.C., de Putron S., Gaetani G.A., Rose K.A. (2009), Compositional and morphological changes in the skeletons of juvenile corals reared in acidified seawater: insights into the biomineralization response to ocean acidification, *Geochem. Geophys. Geosyst.*, 10, Q07005, doi:10.1029/2009GC002411.
- *Holcomb M.C., **Cohen A.L.**, Gabitov R.I., Hutter J. (2009), Compositional and morphological features of aragonite precipitated experimentally from seawater and biogenically by corals, *Geochimica Cosmochimica Acta* 73: 4166-4179 doi:10.1016/j.gca.2009.04.015
- *Saenger C.P., Chang P., Oppo D.W., **Cohen A.L.** (2009), Tropical Atlantic climate response to low-latitude and extratropical sea-surface temperatures anomalies: a Little Ice Age perspective, *Geophysical Research Letters*, Vol. 36, L11703, doi:10.1029/2009gl038677
- *Saenger C.P., **Cohen A.L.**, Oppo D.W., Halley R. and Carilli, J. (2009), Atlantic sea surface temperature trends and variability since 1552, *Nature Geoscience*, doi:10.1038/ngeo552
- *Saenger C.P., **Cohen A.L.**, Oppo D.W. and Hubbard D. (2008), Interpreting sea surface temperature from strontium/calcium ratios in *Montastrea* corals: Link with growth rate and implications for proxy reconstructions, *Paleoceanography*, Vol. 23, PA3102, doi:10.1029/2007PA001572.
- * Gabitov RI, Gaetani G.A., Watson EB, **Cohen A.L.** , Ehrlich HL (2008), Experimental determination of growth rate effect on U6+ and Mg2+ partitioning between aragonite and fluid at elevated U6+ concentration, *Geochimica et Cosmochimica Acta*, v. 70, p. 4617-4634.
- Cohen, A.L.** and Thorrold SR (2007), Recovery of temperature records from slow-growing corals by fine scale sampling of skeletons, *Geophys. Res. Lett.*, 34, L17706, doi:10.1029/2007GL030967
- *Goodkin NF, Hughen KA, **Cohen A.L.** (2007), Multicoral calibration of Sr/Ca and growth rate to sea surface temperature, *Paleoceanography*, 22, PA1214, doi:10.1029/2006PA001312.
- Cohen A.L.**, Gaetani G.A., Lundälv T, Corliss BH and George RY (2006), Compositional variability in a cold-water scleractinian, *Lophelia pertusa*: New insights into “vital effects”, *Geochem. Geophys. Geosyst.*, 7, Q12004, doi:10.1029/2006GC001354.
- Gaetani G.A., **Cohen A.L.** (2006), Element partitioning during precipitation of aragonite from seawater: a framework for understanding paleoproxies, *Geochimica et Cosmochimica Acta*, 70, 4617-4634
- #Goodkin N.F., Hughen K.A., **Cohen A.L.**, Smith S.R. (2005), The Little Ice Age at Bermuda from a Growth-Dependent Calibration of Coral Sr/Ca, *Paleoceanography*, 20, PA4016, doi:10.1029/2005PA001140
- *Bond Z.A., **Cohen A.L.** , Smith S.R., Jenkins W.J.J. (2005), Growth and composition of high-Mg calcite in the skeleton of a Bermudian gorgonian (*Plexaurella dichotoma*): Potential for paleothermometry, *Geochem. Geophys. Geosyst.*, 6, Q08010, doi:10.1029/2005GC000911.
- Cohen A.L.** and Hart S.R. (2004), Deglacial sea surface temperatures of the western tropical Pacific: A new look at old coral, *Paleoceanography*, 19, PA4031, doi:10.1029/2004PA001084.
- Cohen A.L.** and Reves-Sohn R.A. (2004), Tidal Modulation of Sr/Ca in a Pacific Reef Coral. *Geophysical Research Letters*. Vol. 31, No. 16, L16310

- Cohen A.L.**, Smith S.R., McCartney M.S., van Etten J. (2004), How Brain Corals Record Climate: An Integration of Skeletal Structure, Growth and Chemistry in *Diploria labyrinthiformis* on Bermuda. Marine Ecology Progress Series 271:147-158.
- Cleveland R.A., **Cohen A.L.**, Roy R., Singh H., Szabo T. (2004), Imaging Coral II: Using Ultrasound to Image Coral Skeleton, Subsurface Sensing Technologies and Applications 5(1): 43 - 61
- Cohen A.L.** and McConnaughey T.A. (2003), A Geochemical Perspective on Coral Mineralization. In: *Biomineralization*. Dove PM, Weiner S, deYoreo JJ (Eds) Reviews in Mineralogy and Geochemistry Vol. 54 pp 151-187.
- Cohen A.L.**, *Owens K.E., Layne G.D., Shimizu N. (2002), The Effect of Algal Symbiosis on the Accuracy of Sr/Ca paleotemperatures from Coral. Science, 296 (5566):331-333
- Cohen A.L.**, Layne G.D., Hart S.R., Lobel P.S. (2001), Kinetic control of skeletal Sr/Ca in a symbiotic coral: implications for the paleotemperature proxy. Paleoceanography, 16(1): 20-26
- Cohen A.L.** and McCartney M.S. (1999), Seasonally-Resolved records of Oceanic Surface Conditions in Brain Corals from Bermuda. In: Papers on Atlantic Climate Variability, Atlantic Climate Change Program, Office of Global Programs, NOAA
- Cohen A.L.** and Hart S.R. (1997), The Effect of Colony Topography on Climate Signals in Coral Skeleton. Geochimica et Cosmochimica Acta, 61(18):3905-3912
- Hart S.R., **Cohen A.L.**, Ramsay P.B. (1997), Microscale analysis of Sr/Ca and Ba/Ca in Porites. IN: Lessios, H. A., Macintyre, I.G. (eds). Proceedings of the 8th International Coral Reef Symposium 2:1707-1712
- Cohen A.L.**, Lobel P.S., Tomasky G.L. (1997), A Coral Bleaching Event on Johnston Atoll, north-central Pacific. Biological Bulletin, 193:276-279
- Ramsay P.J. and **Cohen A.L.** (1997), Coral paleoclimatology research on the Southeast African Shelf. IN: Lessios, H. A., Macintyre, I.G. (Eds). Proceedings of the 8th International Coral Reef Symposium 2:1731-1734.
- Hart S.R. and **Cohen A.L.** (1996), Sr/Ca in Corals: An Ionprobe Study of Annual Cycles and Microscale Coherence with Other Trace Elements. Geochimica et Cosmochimica Acta, 60:3075-3084.
- Cohen A.L.** and Tyson P.D. (1995), Holocene Sea Surface Temperatures on the South Coast of Africa: Implications for Terrestrial Climate and Rainfall. The Holocene, 5(3):304-312
- Schumann E.H., **Cohen A.L.**, Jury M.R. (1995), Coastal sea surface temperature variability along the south coast of Africa and the relation to regional) Journal of Marine Research, 53:231-248
- Cohen A.L.** (1993), Oceanic Records of Climate Change. News and Views from the Fourth International Conference on Paleoceanography. South African Journal of Science, 89:258-259
- Cohen A.L.**, Parkington J.E., Brundrit G.B., van der Merwe N.J. (1992), A Holocene marine climate record in mollusc shells from the southwest African coast. Quaternary Research 38:379-85
- Cohen A.L.** and Branch G.M. (1992), Geographic changes in the structure and mineralogy of the shell of *Patella granularis* along the coast of South Africa: implications for palaeotemperature assessments. Paleoecology, Palaeogeography and Palaeoclimatology,
- Cohen A.L.** (1988) Isotopic and mineralogical variation in the shells of recent marine molluscs from the western Cape coast of South Africa. South African Journal of Science, 84(11):917-918

REPORTS

- Cohen A.L.** and Andersson A. (2011) Synthesis Plenary IV-2: Impacts of ocean acidification for individual organisms: the state of knowledge, key uncertainties, and the way forward, In: *The IPCC Workshop Report on Impacts of Ocean Acidification on Marine Biology and*

Ecosystems. Eds: Christopher B. Field, Vicente Barros, Thomas F. Stocker, Qin Dahe, Katharine J. Mach, Gian-Kasper Plattner, Michael D. Mastrandrea, Melinda Tignor, Kristie L. Ebi. Published by: IPCC Working Group II Technical Support Unit, Carnegie Institution, Stanford, California, USA.

Munday P. and **Cohen A.L.** (2011) Spatial and temporal scales of variability and rates of change. In: *The IPCC Workshop Report on Impacts of Ocean Acidification on Marine Biology and Ecosystems*. Eds: Christopher B. Field, Vicente Barros, Thomas F. Stocker, Qin Dahe, Katharine J. Mach, Gian-Kasper Plattner, Michael D. Mastrandrea, Melinda Tignor, Kristie L. Ebi. Published by: IPCC Working Group II Technical Support Unit, Carnegie Institution, Stanford, California, USA.

ADVISORY COMMITTEES/WORKING GROUPS

- *Expert Witness*, House Resources Subcommittee on Fisheries Conservation, Wildlife and Oceans Oversight Hearing on the Coral Reef Conservation Act of 2000, Executive Order 13089, and the Oceanic Conditions Contributing to Coral Reef Decline, June 27, 2002

(Summary of hearings: http://www.agiweb.org/gap/legis107/oceans.html#6_27_02)

- *Science Steering Committee (SSC) for the Intergovernmental Panel on Climate Change (IPCC)* Workshop on Impacts of Ocean Acidification on Marine Biology and Ecosystems.

(Product: The IPCC Workshop Report on Impacts of Ocean Acidification on Marine Biology and Ecosystems. Eds: Christopher B. Field, Vicente Barros, Thomas F. Stocker, Qin Dahe, Katharine J. Mach, Gian-Kasper Plattner, Michael D. Mastrandrea, Melinda Tignor, Kristie L. Ebi. Published by: IPCC Working Group II Technical Support Unit, Carnegie Institution, Stanford, California, USA).

- *Center for Ocean Solutions Working Group on Corals and Climate Change*, Okeanos Foundation; hosted by Stanford University.

(Product: Consensus Statement on Climate Change and Coral Reefs. Jim Barry, Dan Barshis, Peter Brewer, Ann F. Budd, Margaret Caldwell, Anne Cohen, Larry Crowder, Rob Dunbar, Yimnang Golbuu, Ove Hoegh-Guldberg, Terry Hughes, Les Kaufman, Mark Kirkpatrick, Kristy Kroeker, John N. Kittinger, Stephen Monismith, Steve Palumbi, John Pandolfi, Adina Paytan, Robert H. Richmond, C. Brock Woodson. http://www.icrs2012.com/Consensus_Statement.htm).

- *Science Panelist for the Pacific Islands Coral Science Workshop*, sponsored by NOAA Pacific Fisheries Center. Local Lead: Dr. Michael Seki, Deputy Director, PIFSC; Chair, Dr. Robert Detrick, Director, OAR.

(Product: NOAA Pacific Islands Corals Science Workshop Report is posted here: http://www.nmfs.noaa.gov/stories/2012/07/docs/report_noaa_pacific_islands_corals_science_workshop.pdf)

- *Invited Speaker for the Coral Reef Ocean Acidification Monitoring Portfolio Workshop*, NOAA Ocean Acidification Program.

EDITORIAL ACTIVITIES

Associate Editor, *Geochimica et Cosmochimica Acta* (2006-2010)

Associate Editor, *JGR Biogeosciences* (2004-2006)

JOURNAL REVIEWER

I review manuscripts for *Science*, *Nature*, *Paleoceanography*, *Geology*, *Geophysical Research Letters*, *G-Cubed*, *EPSL*, *Coral Reefs*, *Science*, *Palaaios*, *Journal of Archeological Science*, *Chemical Geology*, *American Mineralogist*, *Journal of Experimental Marine Biology and Ecology*, *Geochimica et Cosmochimica Acta*, *Marine Geoscience Letters*, *Proceedings of the National Academy of Sciences*

I review research proposals for NSF (ATM, CO, BO, MG&G, P2C2 and Career Advance awards), NOAA (Office of Global Programs and Ocean Exploration Initiatives), The National Undersea Research Council, The NERC Research Fellowship Scheme (UK), The German-Israeli Foundation for Scientific Research and Development, The MacArthur Foundation, EUROCORES Programme EuroMARC, The South African Foundation for Research Development and NOAA Seagrant.

SESSION CHAIR/CO-CHAIR

- 2013: OS021. *The Carbonate System Chemistry of Coastal Ecosystems: Physical, Chemical and Biological Drivers*. American Geophysical Union, Fall Meeting, San Francisco, CA
- 2012: 12th International Coral Reef Symposium, Cairns, Australia. *Mini-Symposium: Mechanisms of Calcification*
- 2011: American Society of Limnology and Oceanography, San Juan Puerto Rico. *Frontiers in ocean acidification research: Responses of marine carbon cycling and ecosystems to ocean acidification*
- 2007: *Frontiers in Biomineralization Research: Processes, Geochemical Signatures and Responses to Global Change*, American Geophysical Union, Fall Meeting, San Francisco, CA
- 2006: *Frontiers in Biomineralization Research: Processes and signatures in natural and model systems*, American Geophysical Union, Fall Meeting, San Francisco, CA
- 2004: *Biomineralization and the Geochemistry of Biogenic Minerals*, American Geophysical Union, Fall Meeting, San Francisco, CA
- 2004: *Biomineralization*, Goldschmidt Conference, Copenhagen, Denmark
- 2002: *Geochemistry of Biogenic Minerals*, Goldschmidt Conference, Davos, Switzerland

INVITED TALKS W/O ABSTRACTS (2009-)

- 05/3/2013: Speaker: "*Toward a Sustainable 21st Century Series: Ocean Acidification Symposium*" Beckman Center of the National Academies of Sciences and Engineering, Irvine, California
- 2/21/2013: *2013 Fischer Lecture*, Roanoke College, Roanoke, VI
- 10/25/2012: *Understanding Ocean Acidification impacts on the resiliency and restoration of the Florida Keys*, Mote Marine Laboratory, Sarasota, FL.
- 10/11/ 2012: *DOEI/OCCI trustee committee*, WHOI, Woods Hole, MA
- 09/11/2012: *Ocean Science Journalism Program*, WHOI, Woods Hole, MA
- 08/28/2012: *Coral Reef Ocean Acidification Monitoring Portfolio Workshop*, Fort Lauderdale, FL.
- 08/08/2012: *Ocean Acidification Public Event*, Redfield Auditorium, Woods Hole, MA.
- 06/19/2012: *Pacific Islands Fisheries Science Center*, Honolulu, HI.
- 06/18/2012: *Pacific Islands Coral Listing Science Workshop*, Honolulu HI.
- 06/13/2012: *Science of the Halmahera Sea*, Workshop, Jakarta, Indonesia.
- 06/08/2012: *Summer Lecture Series*, WHOI Woods Hole MA.
- 04/12/2012: *New England Aquarium Lowell Public Lecture*, New England Aquarium, Boston, MA.
- 03/27/2012: *Palauan House of Delegates*, Palau International Coral Reef Center, Palau.
- 12/12/2011: *Geosciences Department, University of Cape Town*, Cape Town, South Africa
- 11/6/2011: *North East Coral Reef Science Salon*, Woods Hole MA.
- 10/23/2011: *Pew Fellows Program in Marine Conservation Annual Meeting*, Key Largo, Florida.

- 09/13/2011: *Woods Hole Oceanographic Institution Short Course for BP*, Woods Hole, MA.
- 07/07/2011: *Woods Hole Climate Fair*, Redfield Auditorium, Woods Hole, MA.
- 06/15/2011: *National Network for Ocean and Climate Change Interpretation (NNOCCI)*, Woods Hole MA.
- 06/06/2011: *Okeanos Foundation/Stanford University, Center for Ocean Solutions Working Group on Corals and Climate Change*, Honolulu, HI.
- 05/9/2011: *Institute of Marine and Coastal Sciences*, Rutgers University, NJ.
- 2/2/2011: *Vetlesen Lecture, The State of Our Oceans*. University of Rhode Island, Graduate School of Oceanography, Providence, RI.
- 01/19/2011: *Synthesis Plenary: Intergovernmental Panel on Climate Change Workshop on Impacts of Ocean Acidification on Marine Biology and Ecosystems*, Okinawa, Japan.
- 10/29/2010: *MIT Knight Journalism Fellows*, Woods Hole MA.
- 09/27/2010: *Distinguished Lecture Series*, University of Wyoming
- 08/30/2010: *NOAA Fisheries Ocean Acidification Research Workshop*, Seattle, WA
- 07/21/2010: *25th Anniversary Ocean Studies Board Meeting*, Erik Johnsson Center, Woods Hole, MA
- 03/8/2010: *Ocean Acidification Instrumentation and Research Needs Workshop*, Sponsored By Cooperative Institute for Ocean Exploration, Research, and Technology (CIOERT), St Petersburg Florida
- 07/25/2009: *Research Center for Environmental Changes, Academia Sinica*, Taipei, Taiwan
- 05/13/2009: *University of Princeton Environmental Geology and Geochemistry Seminar Series*, Princeton, NJ.
- 04/7/2009: *Environmental Sciences Seminar Program, University of Virginia*, Charlottesville, VA
- 02/22/2009: *Dept. of Earth & Environmental Science, University of Pennsylvania*, PA

MEETING ABSTRACTS (2006-)

- KEYNOTE** Cohen A.L., Oppo, D.W., Vasquez Bedoya., L.F., Henson, S., Bosshart, S., Seo, H., Karnauskas, K.K. (2013) “Persistent Multidecadal Variability in Ocean Climate Recorded in the Skeletal Bands of Tropical Corals.” The 11th International Conference on Paleoceanography, *Long-term perspectives on ocean and climate dynamics – Three decades of ICP*, 1-6 September 2013, Sitges, Mediterranean coast, Barcelona, Spain
- DeCarlo T, Gaetani G, Holcomb M & Cohen A (2013) Coral skeleton U/Ca as a proxy for the carbonate chemistry of the calcifying fluid, International Conference on Paleoceanography 2013, September 1-6, Barcelona, Spain
- Alpert A, Cohen A, Oppo D, DeCarlo T, Gove J & Brainard R (2013) Coral records of Central Equatorial Pacific variability, International Conference on Paleoceanography 2013, September 1-6, Barcelona, Spain.
- KEYNOTE** Cohen A, DeCarlo T, Gaetani G & Holcomb M (2013) Geochemical Windows on Coral Calcification: Cellular Mechanisms and Impacts of Climate Change, Goldschmidt 2013, August 25-30, Florence, Italy
- Wang Xingchen T., Anne L. Cohen and Daniel M. Sigman (2013) Nitrogen isotopes of coral skeleton-bound organic matter: proxy evaluation at Bermuda, Goldschmidt 2013, August 25-30, Florence, Italy
- INVITED** Cohen A.L., McCorkle D.C., Schwietermann, G., Rose, K.A. (2012) Ocean acidification causes shell deformities and reduced calcification in *Crassostrea virginica* larvae, *Northeast Aquaculture Conference & Exposition*, Milford, Connecticut, 12/13/2012

- INVITED** Cohen A.L. and Drenkard E.J. (2012) Pacific Circulation and the Resilience of its Equatorial Reefs, *AGU Fall Meeting*, 3-7 December, San Francisco, CA.
- *Drenkard E. J., Cohen A. L., McCorkle D. C., dePutron S. J., Starczak V. R., Zicht A. E. (2012) Feeding modulates the impact of ocean acidification on coral calcification. *12th International Coral Reef Symposium*, Cairns, Australia
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