# **CURRICULUM VITAE** ANDRÉA GENEVIÈVE GROTTOLI

### ADDRESS AND CONTACT INFORMATION:

School of Earth Sciences (SES) Email: grottoli.1@osu.edu

Tel: 614-292-5782 The Ohio State University

Website: http://u.osu.edu/grottoli.1/ 125 South Oval Mall Twitter: www.twitter.com/CoralResearch Columbus, OH 43210

# **RESEARCH INTERESTS:**

- Impact of climate change (i.e., temperature and ocean acidification) on coral physiology, ecology, isotope biogeochemistry, and resilience
- Tropical paleoceanography derived from coral, gorgonian, and sclerosponge skeleton light isotope ratio ( $\delta^{13}$ C,  $\delta^{18}$ O  $\Delta^{14}$ C) and elemental ratio (Cd/Ca, Ba/Ca, P/Ca, Sr/Ca) proxy records
- Impact of land use change on carbon cycle of rivers and coastal waters using  $\delta^{13}$ C,  $\Delta^{14}$ C, and trace elements

### **EDUCATION:**

McGill University, Montreal Canada	Biology (with Distinction)	BSc. 1992
University of Houston, Texas	Biology (Marine Biogeochemistry)	PhD. 1998
University of California – Irvine, California	Postdoctoral Fellow (Paleoceanography)	1999-2000

Senior Thesis Advisor: Prof. Robert Peters (deceased), McGill University PhD Advisor: Prof. Gerard M. Wellington (deceased), U. of Houston Postdoctoral Advisor: Prof. Ellen R.M. Druffel, U. of California – Irvine

POSITIONS HELD:		
2014 -	Professor, School of Earth Sciences, Ohio State University	
2017 -	Chair, Promotion and Tenure Committee, School of Earth Sciences (SES)	
2008 -	Affiliated Professor, Dept of Ecology, Evolution, and Organismal Biol., Ohio State U.	
2013 - 2017	International Society for Reef Studies Council Member, Chair of Awards Committee	
2005 - 2017	Head of the Stable Isotope Biogeochemistry Lab, School of Earth Sciences, OSU	
2015 - 2016	OSU-President and Provost's Leadership Institute Fellow (PPLI)	
2010 - 2016	Chair of the Water, Climate, & the Environment Division, School of Earth Sciences, OSU	
2013 - 2014	OSU-Committee on Institutional Cooperation Academic Leadership Program Fellow	
2008 - 2014	Associate Professor, School of Earth Sciences, Ohio State University	
2008 - 2011	Associate Professor, Environmental Science Graduate Program, Ohio State U.	
2005 - 2008	Assistant Professor, Environmental Science Graduate Program, Ohio State U.	
2005 - 2008	Assistant Professor, School of Earth Sciences, Ohio State University	
2004, 2012, 2016 Associate Editor for my session, Proceedings of the Int'l Coral Reefs Symposium		
2004 - 2005	Career Enhancement Fellow, Woodrow Wilson National Fellowship Foundation	
2001 - 2005	Assistant Professor, Dept of Earth & Environmental Sci., University of Pennsylvania	
2001 - 2005	Faculty Fellow in Residence, Fisher-Hassenfeld House, University of Pennsylvania	
2001 - 2003	Associate Editor, Coral Reefs (Journal of the International Society for Reef Studies)	
2002 - 2003	Co-Editor, Coral Reefs Special Issue: Env. and Climatic Proxies in Reef Organisms	
1999 - 2000	Dreyfus Postdoctoral Fellow in Environmental Chemistry, Univ. California-Irvine	
1998	Adjunct Faculty, Dept of Biology and Microbiology, California State ULA	
1998	Adjunct Faculty, Dept of Biology, Concordia University	
1993 - 1998	Graduate Student Teaching Assistant/ Research Assistant	

#### AWARDS:

- 2018 American Geophysical Union, Division of Ocean Sciences, Voyager Award (Mid-Career)
- 2017 American Association for the Advancement of Science (AAAS) Fellow
- 2016 International Society for Reef Studies Fellow
- 2016 International Society for Reef Studies Mid-Career Award
- 2016 School of Earth Science Faculty Mentor Award
- 2015-2016 Ohio State University President and Provost's Leadership Institute Fellow
- 2013-2014 Committee on Institutional Cooperation Academic Leadership Program Fellow
- 2004 F. W. Clarke Award, Geochemical Society, Young Scientist Award in geochemistry or cosmochemistry.
- 2004 Bradley Award: Geological Society of Washington's Best Paper Award
- 2004 Woodrow Wilson National Fellowship, Career Enhancement Fellowship for Junior Faculty
- 2004 Trustees Council of Penn Women Summer Faculty Research Fellowship
- 2003 American Society of Mass Spectrometry Research Award
- 2000 Best Paper Award: International Society for Reef Studies, Grottoli & Wellington: Coral Reefs
- 1999 Dissertation Symposium in Chemical Oceanography XV, awardee and participant
- 1999-2000 Dreyfus Postdoctoral Fellowship in Environmental Chemistry, U. of California Irvine
- 1999 University Women Postdoctoral Research Leave Fellowship, AAUW (declined for Dreyfus)
- 1996-1998 Environmental Protection Agency Graduate STAR Graduate Fellowship
- 1998 Graduate Student Research Excellence Award, University of Houston, TX
- 1989 McConnell Entrance Award, McGill University, Canada

#### **STATS SUMMARY:**

Google Citation indices	All	Since 2013	Category	Career Total
Citations	3816	2069	Peer-reviewed publications	73
h-index	31	24	Total funding (total to Grottoli)	\$4.5M (\$3.5M)
i10-index	56	45	Lead PI	24 of 25 grants

# **PEER-REVIEWED PUBLICATIONS** (\*= my student advisee or postdoc, †=other students):

- 2018 (73) †Yuan XH, Cai WJ, Meile C, Hopkinson B, Ding Q, Chen B, \*Schoepf V, Warner ME, Hoadley KD, Chen B, Liu S, Huang H, Ying Y, **Grottoli** AG, Quantitative interpretation of vertical profiles of calcium and pH in the coral coelenteron. *Marine Chemistry* 204:62-69, 10.1016/j.marchem.2018.06.001
- 2018 (72) \*Levas S, **Grottoli** AG, Warner M, \*Schoepf V, †Aschaffenburg M, \*Baumann J, Matsui Y, Long-term recovery of Caribbean corals from bleaching. *Journal of Experimental Marine Biology and Ecology* 506:124-134, 10.1016/j.jembe.2018.06.003
- 2018 (71) Barker JD, **Grottoli** AG, Lyons WB, Stable isotope evidence for the biogeochemical transformation of ancient organic matter beneath Suess Glacier, Antarctica. *Arctic, Antarctic, and Alpine Research,* 50:e1448643, 10.1080/15230430.2018.1448643
- 2018 (70) **Grottoli** AG, \*Dalcin Martins P, Wilkins MJ, Johnston MD, Warner ME, Cai WJ, Melman TF, †Hoadley KD, †Pettay DT, Hu X, \*Levas S, \*Schoepf V, Coral physiology and microbiome dynamics under combined ocean warming and acidification. *PLoS ONE* 13(1): e0191156, 10.1371/journal.pone.0191156

- ➤ Press release by OSU, 4,267 views, Altmetric = 121
- ➤ Featured by Hakai Magazine, Technology.org, Science Newsline, EurekaAlert!, NewWise, and others
- 2017 (69) **Grottoli** AG, Tchernov D, Winters G, Physiological and Biogeochemical Responses of Super-Corals to Thermal Stress from the Northern Gulf of Aqaba, Red Sea. *Frontiers in Marine Science* 4:215, 10.3389/fmars.2017.00215
- 2017 (68) \*Bellamy AR, Bauer JE, **Grottoli** AG, Influence of land use and lithology on sources and ages of nutritional resources for stream macroinvertebrates: a multi-isotopic approach. *Aquatic Sciences*, 79(4):925-939, 10.1007/s00027-017-0542-3
- 2017 (67) \*Tanaka Y, **Grottoli** AG, Matsui Y, Suzuki A, Sakai K, Effects of nitrate and phosphate availability on the tissues and carbonate skeleton of scleractinian corals. *Marine Ecology Progress Series* 570:101-112, 10.3354/meps12079
- 2017 (66) \*Schoepf V, Hu X, Holcomb M, Cai WJ, †Li Q, Wang Y,†Xu H, Warner ME, Melman TF, †Hoadley KD, Pettay DT, Matsui Y, \*Baumann JH, **Grottoli** AG. Coral calcification under environmental change: a direct comparison of the alkalinity anomaly and buoyant weight techniques. *Coral Reefs* 36: 13-25, 10.1007/s00338-016-1507-z
- 2016 (65) †Hoadley KD, Pettay KD, **Grottoli** AG, Cai WJ, Melman TF, \*Levas S, \*Schoepf V, †Ding Q, †Yuan X, Wang Y, Matsui Y, \*Baumann JH, Warner ME. High temperature acclimation strategies within the thermally tolerant endosymbiont *Symbiodinium trenchii* and its coral host, *Turbinaria reniformis*, differ with changing *p*CO<sub>2</sub> and nutrients. *Marine Biology* 163:134, 10.1007/s00227-016-2909-8
- 2016 (64) \*Williams B, Thibodeau B, Chikaraishi Y, Ohkouchi N, Walnum A, **Grottoli** AG, Colin P. Consistency in coral skeletal amino acid composition offshore of Palau in the western Pacific warm pool indicates no impact of decadal variability in nitricline depth on primary productivity. *Limnology and Oceanography* 62:399-407, 10.1002/lno.10364
- 2016 (63)\*Levas SJ, **Grottoli** AG, \*Scheopf V, †Aschaffenburg M, \*Baumann J, Bauer JE, Warner M. Can heterotrophic uptake of DOC and zooplankton mitigate C budget deficits in annually bleached corals? *Coral Reefs* 35:495-506 doi:10.1007/s00338-015-1390-z
- 2016 (62) Cai WJ, Ma Y, Hopkinson B, **Grottoli** A, Warner M, †Ding Q, Hu X, †Yuan X, \*Schoepf V, Xu H, Han C, Melman T, †Hoadley K, Pettay DT, Matsui Y, \*Baumann J, \*Levas S, Ye Y, Wang Y. Microelectrode characterization of coral daytime interior pH and carbonate chemistry. *Nature Communications* 7:11144 doi: 10.1038/ncomms11144

  Press release by OSU, UD
- 2016 (61) LaVigne M, **Grottoli** AG, \*Palardy J, Sherrell RM. Multi-colony calibrations of coral Ba/Ca with a contemporaneous *in situ* seawater barium record. *Geochimica et Cosmochimica Acta* 179:203-216.
- 2015 (60) †Hoadley KD, †Pettay DY, **Grottoli** AG, Cai WJ, Melman TF, \*Schoepf V, †Hu X, †Li Q, †Xu H, Wang Y, Matsui Y, \*Baumann JH, Warner ME. Physiological response to elevated temperature and *p*CO<sub>2</sub> varies across four Pacific coral species: Understanding the unique host+symbiont response. *Nature Scientific Reports* 5:18371, DOI: 10.1038/srep18371
- 2015 (59) \*Schoepf V, **Grottoli** AG, \*Levas SJ, †Aschaffenburg MD, \*Baumann J, Matsui Y, Warner ME. Annual coral bleaching can impair the long-term recovery capacity of coral.

- *Proceedings of the Royal Society B* 282 (1819): 20151887. http://dx.doi.org/10.1098/rspb.2015.1887
- Covered by: OSU press release, Science World Report, Climate Wire, EurekaAlert!, others
- 2015 (58) Andersson AJ, Kline DI, Edmunds PJ, Archer SD, Bednarsek N, Carpenter RC, Chadsey M, Goldstein P, Grottoli AG, Hurst TP, King AL, Kubler JE, Kuffner IB, Mackey KRM, Menge BA, Paytan A, Reibesell U, Schnetzer A, Warner ME, Zimmerman RC. Understanding ocean acidification impacts on organismal to ecological scales. *Oceanography* 28(2):16–27, http://dx.doi.org/10.5670/oceanog.2015.27.
- 2015 (57) \*Tanaka Y, **Grottoli AG**, Matsui Y, Suzuki A, Sakai K. Partitioning of nitrogen sources to coral algal endosymbionts with long-term <sup>15</sup>N-labelling and a mixing model. *Ecological Modeling* 309-310: 163-169, http://dx.doi.org/10.1016/j.ecolmodel.2015.04.017
- 2015 (56) \*Levas, S, **Grottoli AG**, Warner ME, Cai WJ, Bauer J, \*Schoepf V, Matsui Y, \*Baumann JH, Melman TF, †Hoadley KD, †Pettay DT, †Q Li, †Hu X, Wang Y. Organic carbon fluxes mediated by corals at elevated *p*CO<sub>2</sub> and temperature. *Marine Ecology Progress Series*, 519:153-164, doi: 10.3354/meps11072.
- 2014 (55) \*Schoepf V, McCulloch MT, Warner ME, \*Levas SJ, Matsui Y, Aschaffenburg D, **Grottoli** AG. Short-term coral bleaching is not recorded by skeletal boron isotopes. *PLoS One* 9(11): e112011. doi:10.1371/journal.pone.0112011
- 2014 (54) \*Baumann J, **Grottoli AG**, \*Hughes AD, Matsui Y. Photoautotrophic and heterotrophic carbon in bleached and non-bleached coral lipid acquisition and storage. *Journal of Experimental Marine Biology and Ecology*. 461: 469-478. doi.org/10.1016/j.jembe.2014.09.017
- 2014 (53) \*Schoepf B, \*Levas SJ, Rodrigues LJ, \*McBride MO, †Aschaffenburg MD, Matsui Y, Warner ME, Hughes A, **Grottoli AG.** Kinetic and metabolic isotope effects in coral skeletal carbon isotopes: a re-evaluation using experimental coral bleaching as a case study. *Geochimica et Cosmochimica Acta*. 146: 164-178. doi.org/10.1016/j.gca.2014.09.033
- 2014 (52) **Grottoli** AG, Warner ME, \*Levas SJ, †Aschaffenburg M, \*Schoepf V, †McGinley M, \*Baumann J, Matsui Y. The cumulative impact of annual coral bleaching turns some coral species winners into losers. *Global Change Biology* 20(12): 3823-3833. 10.1111/gcb.12658 ➤ Covered by: OSU Press release, Altmetric = 60 ➤ NSF Science 360, SciGuru, Smithsonian, Ensia
- 2013 (51) \*Hughes A, **Grottoli** AG. Heterotrophic compensation: A possible mechanism for resilience of coral reefs to global warming or a sign of prolonged stress? *PLoS ONE* 8(11): e81172, doi:10.1371/journal.pone.0081172
- 2013 (50) \*Schoepf V, **Grottoli** AG, Warner ME, Cai W-J, Melman T, †Hoadley K, †Pettay D, †Hui X, †Li Q, †Xu H, Wang Y, Matsui Y, \*Baumann JH. Coral energy reserves and calcification in a high-CO<sub>2</sub> world at two temperatures. *PLoS ONE* 8(10): e75049, doi:10.1371/journal.pone.0075049
- 2013 (49) **Grottoli** AG, \*Matthews KA, \*Palardy JE, McDonough WF. High resolution coral Cd measurements using LA-ICP-MS and ID-ICP-MS: Calibration and interpretation. *Chemical Geology*, 365: 151-159, 10.1016/j.chemgeo.2013.08.024
- 2013 (48) \*Levas S, **Grottoli** AG, \*Hughes A, Osburn C, Matsui Y. Physiological and biogeochemical traits of bleaching and recovery in the mounding species of coral *Porites*

- *lobata*: implications for resilience in mounding corals. *PLoS ONE* 8(5): e63267. doi:10.1371/journal.pone.0063267
- 2013 (47) \*Moyer RP, **Grottoli** AG, Bauer JE. Carbon isotope biogeochemistry of tropical small mountainous river, estuarine, and coastal systems of Puerto Rico. *Biogeochemistry* 112(1-3): 589-612. doi: 10.1007/s10533-012-9751-y
- 2013 (46) †Padilla-Gamiño JL, Bidigare R, Barshis, Alamaru A, Hedouin L, Hernandez-Pech X, Kandel F, Soon SL, Roth M, Rodrigues L, **Grottoli** AG, Portocarrero C, Wagenhouser S, Buttler F, Gates RD. Are all eggs created equal? A case study from the Hawaiian reef building coral *Montipora capitata*. *Coral Reefs* 32(1): 137-152, doi: 10.1007/s00338-012-0957-1
- 2012 (45) \*Moyer RP, **Grottoli** AG, Olesik J. A multi-proxy record of terrestrial inputs to the coastal ocean using minor and trace elements (Ba/Ca, Mn/Ca, Y/Ca) and carbon isotopes (δ<sup>13</sup>C, Δ<sup>14</sup>C) in a nearshore coral from Puerto Rico. *Paleoceanography* 27(3): PA3205, doi:10.1029/2011PA002249
- 2011 (44) †Hennige SJ, †McGinley M, **Grottoli** AG, Warner ME. Photoinhibition of *Symbiodinium* spp. within the reef corals *Montastraea faveolata* and *Porites astreoides*: implications for coral bleaching. *Marine Biology* 158(11): 2515-2526.
- 2011 (43) †Kilbourne KH, \*Moyer RP, Quinn TM, **Grottoli** AG. Testing coral-based tropical cyclone reconstructions: an example from Puerto Rico. *Palaeogography, Palaeoclimatology, Palaeoecology*. 307(1-4): 90-97
- 2011 (42) **Grottoli** AG, \*Rodrigues LJ. Bleached *Porites compressa* and *Montipora capitata* corals catabolise  $\delta^{13}$ C-enriched lipids. *Coral Reefs* 30(3):687-692.
- 2011 (41) \*Moyer RP, **Grottoli** AG. Coral Skeletal Carbon Isotopes ( $\delta^{13}$ C &  $\Delta^{14}$ C) Record the Delivery of Terrestrial Carbon to the Coastal Waters of Puerto Rico. *Coral Reefs* 30(3): 791-802
- 2011 (40) \*Williams B, Grottoli AG. Solution and laser ablation (LA) inductively coupled plasma-mass spectrometry measurements of Br, I, Pb, Mn, Cd, Zn, and B in the organic skeleton of soft corals and black corals. *Geochemistry, Geophysics, and Geosystems* 12(3): Q03011, doi:10.1029/2010GC003375.
- 2010 (39) \*Hughes AD, **Grottoli** AG, Pease TK, Matsui Y, Acquisition and assimilation of carbon in non-bleached and bleached corals. *Marine Ecology Progress Series* 420: 91–101.
- 2010 (38) \*Williams B, Grottoli AG, Recent shoaling of the nutricline and thermocline in the western tropical Pacific. *Geophysical Research Letters* 37(2): L22601, doi:10.1029/2010GL044867.
   Covered by Nature Research Highlights, Australian Broadcasting Company, AGU, MsNBC, USA Today, World News, Science Daily, Others.
- 2010 (37) \*Williams B, **Grottoli** AG, Stable nitrogen and carbon isotope ( $\delta^{15}$ N and  $\delta^{13}$ C) variability in shallow tropical Pacific soft coral and black coral taxa and implications for paleoceanographic reconstructions. *Geochimica et Cosmochimica Acta* 74(18):5280-88.
- 2010 (36) †LaVigne M, \*Matthews KA, **Grottoli AG**, Cobb KM, Anagnostou E, Cabioch G, Sherrell RM. Coral skeleton P/Ca proxy for seawater phosphate: multi-colony calibration with a contemporaneous seawater phosphate record. *Geochimica et Cosmochimica Acta* 74(4):1282-1293

- 2010 (35) **Grottoli** AG, Adkins JF, Panero W, †Reaman D, Moots K. Growth rates, stable oxygen isotopes (δ<sup>18</sup>O), and strontium (Sr/Ca) composition in two species of Pacific sclerosponges (*Acanthocheatetes wellsi* and *Astroclera willeyana*) with δ<sup>18</sup>O calibration and application to paleoceanography. *Journal of Geophysical Research Oceans* 115(6): C06008, doi: 10.1029/2009JC005586.
- 2010 (34) \*Wu H, **Grottoli** AG. Stable oxygen isotope records of corals and a sclerosponge in the Western Pacific warm pool. *Coral Reefs* 29(2): 413-418.
- 2010 (33) Lesser MP, Ojimi M, Gates R, Stat M, Slattery M, **Grottoli AG**. Photoacclimatization by the Coral *Montastraea cavernosa* in the Mesophotic Zone: Light, Food, and Genetics. *Ecology* 91 (4):990-1003.
- 2009 (32) \*Adler RE, Polyak L, Ortiz JD, Kaufman DS, Channell JET, Xuan C, **Grottoli AG**, Sellen E, Crawford KA. Sediment record from the western Arctic Ocean with an improved Late Quaternary age resolution: HOTRAX core HLY0503-8JPC, Mendeleev Ridge. *Global and Planetary Change*. 68(1-2):18-29, doi: 10.1016/j.gloplacha.2009.03.026
- 2009 (31) Fitt WK, Gates R, Hoegh-Guldberg O, Bythell J, Jatkar A, Grottoli AG, Gomez M, Fisher P, Franklin D, Lajeunesse T, Pantos O, Iglesias-Prieto R, \*Rodrigues LJ, Torregiani JM, van Woesik R, Lesser MP. Response of two species of Indo-Pacific corals, *Porites cylindrica* and *Stylophora pistillata*, to thermal stress: the host does matter in determining the tolerance of corals to bleaching. *Journal of Experimental Marine Biology and Ecology* 373(2): 102-110.
- 2009 (30) Anthony KRN, Hoogenboom M, Maynard J, **Grottoli** AG, Middlebrook R. Energetics approach to predicting mortality risk from environmental stress: a case study of coral bleaching. *Functional Ecology* 23(3):539-550. Doi: 10.111/j.1365-2435.2008.01531.x
- 2008 (29) \*Palardy JE, \*Rodrigues LJ, **Grottoli** AG. The importance of zooplankton to the daily metabolic carbon requirements of healthy and bleached corals at two depths. *Journal of Experimental Marine Biology and Ecology*. 367(2):180-188
- 2008 (28) **Grottoli** AG. Past climate from corals. In: *Encyclopedia of Ocean Sciences: Second Edition* [Eds. J Steele, S Thorpe, K Turekian], Academic Press, London pp. 338-347
- 2008 (27) \*Matthews KA, **Grottoli** AG, McDonough, \*Palardy JE. Upwelling, species, and depth effects on coral skeletal cadmium-to-calcium ratios (Cd/Ca). *Geochimica et Cosmochimica Acta*. 72 (18): 4537-4550
- 2008 (26) \*Rodrigues LJ, **Grottoli** AG, Lesser MP. Long-term changes in the chlorophyll fluorescence of bleached and recovering corals from Hawaii. *Journal of Experimental Biology*. 211(15): 2502-2509
- 2008 (25)\*Rodrigues LJ, **Grottoli** AG, Pease T. Lipid class composition of bleached and recovering *Porites compressa* Dana, 1846 and *Montipora capitata* Dana, 1846 corals from Hawaii. *Journal of Experimental Marine Biology and Ecology* 358 (2): 136-143
- 2008 (24) †LaVigne M, Field MP, Anagnostou E, **Grottoli** AG, Wellington GM, Sherrell RM Skeletal P/Ca tracks upwelling in Gulf of Panamá coral: Evidence for a new seawater phosphate proxy. *Geophysical Research Letters* 35(5): L05604, doi:10.1029/2007GL031926 

  Editor's Choice in Science (2008, 319:1590-1591) and AGU Choice Highlights

- 2007 (23) †Narayanan V, Anirudhan S, **Grottoli** AG. Oxygen and carbon isotope analysis of the Miocene limestone of Kerala and its implications to paleoclimate and its depositional setting. *Current Science* 93(8): 1155-1159
- 2007 (22) \*Rodrigues LJ, **Grottoli** AG. Energy reserves and metabolism as indicators of coral recovery from bleaching. *Limnology and Oceanography* 52(5): 1874-1882.
- 2007 (21) **Grottoli** AG, Eakin M. A review of modern coral  $\delta^{18}$ O and  $\Delta^{14}$ C proxy records. *Earth Science Reviews* 81(1-2): 67-91
- 2006 (20) \*Matthews KA, McDonough W, **Grottoli** AG. Cadmium measurements in coral skeleton using isotope dilution-inductively coupled plasma-mass spectrometry. *Geochemistry*, *Geophysics*, *and Geosystems*, 7(11): Q11021, doi:10.1029/2006GC001352
- 2006 (19) Eakin CM, **Grottoli** AG. Coral reef records of past climate change. In: *Coral Reefs and Climate Change: Science and Management* [eds. Phinney, J., Skirving, W., Kleypas, J., Hoegh-Guldberg, O., Strong, A.E.], AGU publishers, Coastal and Estuarine Studies 61:33-54.
- 2006 (18) **Grottoli** AG, \*Rodrigues LJ, \*Palardy JE. Heterotrophic plasticity and resilience in bleached corals. *Nature* 440(7088): 1186-1189 doi:10.1038/nature04565
  - Covered by NPR (Science Fridays), Quirks and Quarks radio show (CBC Radio Canada), Discovery Channel News, Washington Post, Scientific American, OSU Today, Columbus Dispatch, and others
- 2006 (17) **Grottoli** AG. Monthly resolved stable oxygen isotope record in a Palauan sclerosponge *Acanthocheatetes wellsi* for the period of 1977-2001. *Proceedings of the 10<sup>th</sup> International Coral Reef Symposium*, pp. 572-579.
- 2006 (16) \*Rodrigues L, **Grottoli** AG. Lipids and chlorophyll in bleached and recovering *Montipora* capitata from Hawaii: An experimental approach. *Proceedings of the 10<sup>th</sup> International Coral* Reef Symposium, pp. 696-701.
- 2006 (15) \*Rodrigues LJ, **Grottoli** AG. Calcification rate and the stable carbon, oxygen, and nitrogen isotopes in the skeleton, host tissue, and zooxanthellae of bleached and recovering Hawaiian corals. *Geochimica et Cosmochimica Acta* 70(11): 2781-2789
- 2006 (14) \*Palardy JE, **Grottoli** AG, \*Matthews KA. Effect of naturally changing zooplankton concentrations on feeding rates of two coral species in the Eastern Pacific. *Journal of Experimental Marine Biology and Ecology*, 331(1):99-107
- 2005 (13) **Grottoli** AG, \*Rodrigues LJ, \*Matthews KA, \*Palardy JE, Gibb O. Pre-treatment effects on coral skeletal  $\delta^{18}$ O. *Chemical Geology* 221(3-4):225-242
- 2005 (12) \*Palardy JE, **Grottoli** AG, \*Matthews K. Effects of upwelling, depth, morphology and polyp size on feeding in three species of Panamanian corals. *Marine Ecology Progress Series* 300:79-89
- 2004 (11) **Grottoli** AG, \*Rodrigues LJ, \*Juarez C. Lipids and stable carbon isotopes in two species of Hawaiian corals, *Porites compressa* and *Montipora verrucosa*, following a bleaching event. *Marine Biology* 145(3): 621-631
- 2004 (10) †Hönisch B, Hemming NG, **Grottoli** AG, Amat A, Hanson GN, Bijma J. Assessing scleractinian corals as recorders for paleo-pH: Empirical calibration and vital effects. *Geochimica et Cosmochimica Acta* 68(18): 3675-3685

- 2003 (9) **Grottoli** AG, Gille ST, Druffel ERM, Dunbar RB. Decadal timescale shift the <sup>14</sup>C record of a central equatorial Pacific coral. *Radiocarbon* 45(1): 91-99
- 2002 (8) **Grottoli** AG. Effect of light and brine shrimp levels on the skeletal  $\delta^{13}$ C values of the Hawaiian coral *Porites compressa*: a tank experiment. *Geochimica et Cosmochimica Acta* 66(11): 1955-1967
- 2001 (7) **Grottoli** AG. Past Climate From Corals. In: *Encyclopedia of Ocean Sciences: First Edition* [Eds. J Steele, S Thorpe, K Turekian], Academic Press, London pp. 338-347
- 2000 (6) **Grottoli** AG. Stable carbon isotopes ( $\delta^{13}$ C) in coral skeletons. *Oceanography* 13:93-97
- 1999 (5) **Grottoli** AG. Variability in stable isotopes and maximum linear skeletal extension in reef corals in Kaneohe Bay, Hawaii. *Marine Biology* 135(3): 437-449
- (4) Grottoli AG, Wellington GM. Effects of light and zooplankton on skeletal δ¹³C values in the Eastern Pacific corals *Pavona clavus* and *P. gigantea. Coral Reefs* 18(1):29-41
   ▶ Best Paper Award: International Society for Reef Studies in 2000
- 1997 (3) **Grottoli**-Everett AG, Wellington GM. Fish predation on the scleractinian coral *Madracis mirabilis* controls its depth distribution in the Florida Keys. *Marine Ecology Progress Series* 160: 291-293
- 1995 (2) **Grottol**i-Everett AG. Bleaching and lipids in the Pacific coral *Montipora verrucosa*. In *Ultraviolet Radiation & Coral Reefs*. [eds: Gulko D, Jokiel PL], Sea Grant Publication UNIHI-SEAGRANT-CR-95-03, Hawaii Institute of Marine Biology Technical Report #41:107-113
- 1995 (1) **Grottoli**-Everett AG, Kuffner I. Uneven bleaching within colonies of the Hawaiian coral *Montipora verrucosa*. In *Ultraviolet Radiation & Coral Reefs*. [eds:Gulko D, Jokiel PL], Sea Grant Publication UNIHI-SEAGRANT-CR-95-03, Hawaii Institute of Marine Biology Technical Report #41:115-120

### DISSERTATION

**Grottoli**-Everett (1998) Interpretation of stable carbon isotopes in reef coral skeletons and application for paleoclimate reconstruction. PhD Dissertation. University of Houston p.225

### **NON PEER-REVIEWED PUBLICATIONS (\*=student advisee):**

- 2018 (12) **Grottoli** AG, John Island and Coral Reefs, *John Island Camp Alumni News Magazine*, Spring 2018 http://www.johnisland.ymca.ca/images/2018spring%20jic%20newsletter.pdf
- 2017 (11) **Grottoli** AG, Shum CK, Durand M, Thompson L, Curtis PS, Mark B, Mosley-Thompson E, Cervenec J, Bauer J, Wilson A. Climate Change: March for Science Columbus, *March for Science Columbus*, 22 April 2017, http://marchforscience-columbus.webflow.io/all-stories/climate-change-c
- 2016 (10) Warner, M.E., Barshis, D.J., Davies, S.W., **Grottoli**, A.G., LaJeunesse, T.C., van Woesik, R. Investigating coral bleaching in a changing climate: Our state of understanding and opportunities to push the field forward. *Report of the NSF U.S. Investigator Workshop on Coral Bleaching*, June 17–18, 2016. Hawaii Prince Hotel, Honolulu, HI, 26 pp.
- 2016 (9) **Grottoli** AG, Warner ME. National Science Foundation US Investigators Coral Bleaching workshop. *Reef Encounters* 31(2):61-61

- 2016 (8) **Grottoli** AG. Faculty profile: Andréa Grottoli in *School of Earth Sciences News and Notes* newsletter. August edition, pp. 3-4.
- 2015 (7) **Grottoli** AG. As the Earth enters its third mass bleaching event, will corals survive?, *The Conversation*, 20 Nov 2015, http://theconversation.com/drafts/50740
  - > 7,693 unique readers
  - republished by IFLScience, The Huffington Post, Honolulu Civil Beat, Epoch Times
- 2011 (6) **Grottoli** AG. Ocean Explorers Tank Guide. A picture book, reference guide, and poster to accompany the live saltwater coral tank at the Batelle Discovery Center.
- 2008 (5) \*Williams B, **Grottoli** AG. Attempts to culture and monitor growth rates in deep-water antipatharians and gorgonians. In: *Characterization of Northern Gulf of Mexico Deepwater Hard Bottom Communities with Emphasis on Lophelia Coral Lophelia Reef Megafaunal Community Structure, Biotopes, Genetics, Microbial Ecology, and Geology. [Eds KJ Sulak, MT Randall, KE Luke, AD Norem, JM Miller]. USGS Open-File Report 2008-1148; OCS Study MMS 2008-015, 15 April 2008 available at http://cars.er.usgs.gov/coastaleco/*
- 2006 (4) **Grottoli** AG. Acceptance of the 2004 W.F. Clarke Award. *Geochimica et Cosmochimica Acta* 70(18 suppl.): S17-S18.
- 2004 (3) Grottoli AG, \*Rodrigues LJ, \*Juarez C. Effect of bleaching on the coral host total lipid content, lipid class composition, and skeletal stable isotopic composition. In: The effects of combined sea temperature, light, and carbon dioxide on coral bleaching, settlement and growth [Ed. JC Hendee]. NOAA Research Special Report (February, 2004), Silver Spring, MD, p. 661-64.
- 2004 (2) **Grottoli** AG. ICRS Workshop Participants (2004). 10<sup>th</sup> ICRS Pre-Symposium Workshop on Coral Reefs and Global Change. *Reef Encounter* 32: 63-64.
- 2003 (1) Swart PK, **Grottoli** A. Proxy indicators of climate in coral skeletons: a perspective. *Coral Reefs* 22(4): 313-315.

# MANSUCRIPTS IN REVIEW OR PREP (\* = my student advisees, † = other students):

- \*Bellamy AR, Bauer JE, **Grottoli** AG (submitted) Autochthonous, allochthonous, and aged carbon and organic matter contributions to macroinvertebrate nutrition in the Susquehanna River Watershed. *Freshwater Science*
- **Grottoli** AG, \*Gava D, Olesik J, (in prep) Natural variability of P/Ca, Pb/Ca, and Ba/Ca in two species of western Pacific sclerosponges. *Chemical Geology*
- **Grottoli** AG (submitted) Coral reefs and climate change: We are running out of time. *In: Time: An interdisciplinary conversation across the sciences, arts and humanities* [Eds: SK Gribetz & L Kaye]
- \*Bellamy AR, Bauer JE, **Grottoli** AG (in prep) Temporal Variability in Autochthonous and Allochthonous Nutritional Sources to Macroinvertebrates in a Temperate Stream. *Marine and Freshwater Research*
- \*Kelsey SA, **Grottoli** AG, Bauer JE, Matsui Y, \*Huey-Sanders TM (in prep) Impacts of agriculture and tillage practices on headwater stream fluxes of organic and inorganic carbon in temperate watersheds. *Aquatic Sciences*
- Baums IB, Davies SW, Kenkel CD, Kitchen SA, Kuffner, IB Baker, AC, LaJeuinesse, TC, Matz, MV, Miller MW, **Grottoli** AG, Palumbi SR, Parkinson JE, Shantz AA (submitted) How to

maximize future adaptive potential of restored coral populations. *Ecological Monographs*Parkinson JE, Barker, AC, Baums IB, Davies SW, **Grottoli** AG, Kitchen SA, LaJeunesse TC, Matz
MV, Miller MW, Shantz AA, Kenkel CD (submitted) Molecular tools for coral reef
restoration: beyond biomarker discovery. Conservation Letters

### FUNDED GRANTS AND FELLOWSHIPS

- 2019-2022 **National Science Foundation** Biological Oceanography, Coral Bleaching Research Coordination Network. Grottoli AG (sole PI) \$499,828. Grottoli is the Director of the Network. She will be coordinating activities with her steering committee including a series of workshops, outreach programs, and early career training opportunities.
- 2018-2019 **HW Hoover Foundation,** Educating and inspiring the next generation of coral conservation scientists (part II). Grottoli AG (sole PI) \$84,909
- 2016-2018 **HW Hoover Foundation**, Educating and inspiring the next generation of coral conservation scientists. Grottoli AG (sole PI) \$74,991
- 2014-2018 **National Science Foundation** Biological Oceanography, Phenotype and genotype of coral adaptation and acclimatization to global change. AG Grottoli (lead PI), \$348,133.
- 2014-2015 **National Science Foundation** RAPID collaborative proposal: Will corals recover from bleaching under ocean acidification conditions? Grottoli AG (lead PI), Toonen RJ \$186,300 (amount to Grottoli \$158,420).
- 2010-2014 **National Science Foundation** Ocean Acidification Category 1 Interactive Effects of Temperature, Nutrients, and Ocean Acidification on Coral Holobiont Physiology and Calcification. Grottoli AG (lead PI), Cai W-J, Warner M \$1,077,588 (amount to Grottoli \$367,800).
- 2012-2013 **PADI Foundation**, Protection for corals from global warming? Grottoli AG, \$8,440
- 2009-2012 **National Science Foundation** Biological Oceanography, Collaborative Research: Physiology and Biogeochemistry of Repeatedly Bleached and Recovering Caribbean Corals. AG Grottoli (lead PI) and M Warner \$764,935 (amount to Grottoli \$388,374).
- National Science Foundation EAR Instrumentation and Facilities, Acquisition of a liquid water isotope analyzer for hydrological, glaciological and geochemical research. Lead PI: AE Carey, Co-PIs: AG Grottoli, IM Howat, WB Lyons, BG Mark \$57,700.
- 2008-2010 **Ohio State University** Carbon, Water, and Climate Seed Grant Program, Natural Variability and Sources of Dissolved and Particulate Carbon in Streams of Various Land-Use Types Within the Coshocton, OH Watershed. AG Grottoli (sole PI) \$52,973
- 2007-2009 **Mellon Foundation**, Natural variability and history of the transfer of terrestrial carbon to the coastal ocean in Puerto Rico. AG Grottoli (sole PI) \$75,000.
- 2005-2009 **National Science Foundation** Division of Biological Oceanography, Collaborative research: Acquisition, allocation, and utilization of carbon in bleached and recovering corals. (OCE#0542415) AG Grottoli (lead PI) & TK Pease \$667,660 (amount to Grottoli \$329,780).
- 2004-2007 **National Science Foundation** Division of Chemical Oceanography, Stable Isotopes and strontium in western Pacific sclerosponges: calibration and applications to paleoceanography (OCE#0426022) AG Grottoli (sole PI) \$195,249.
- 2004-2006 **Petroleum Research Foundation**, Cadmium and barium in corals: a field study. AG Grottoli (sole PI) \$35,000.
- 2004-2006 **Mellon Foundation**, What is the Effect of Land Use Change on the Carbon Cycle in Puerto Rico? AG Grottoli (sole PI) \$75,000.

- Woodrow Wilson National Fellowship, Career Enhancement Fellowship for Junior Faculty. AG Grottoli \$31,500 and one year of teaching relief.
- Trustees Council of Penn Women Summer Faculty Research Fellowship, Effects of Terrestrially Derived Sediments on Corals in the Guanica Preserve, Puerto Rico over the past century. AG Grottoli (sole PI) \$5000.
- 2004 **University of Pennsylvania Research Foundation**, Late Holocene climate inferred from fossil corals of the Gulf of Aqaba (Red Sea). AG Grottoli (sole PI) \$25,000.
- 2003-2004 **American Society of Mass Spectrometry** Research Award, Developing new geochemical tools for paleoclimate reconstruction: *In situ* calibration of stable isotopes in western tropical Pacific sclerosponges. AG Grottoli (sole PI) \$25,000.
- 2002-2003 **University of Pennsylvania Research Foundation**, Upwelling records in corals: a multi-proxy approach. AG Grottoli (sole PI) \$25,000.
- 2001-2002 **University of Pennsylvania Research Foundation**, Sclerosponge and paleoclimate reconstruction. AG Grottoli (sole PI) \$28,000.
- 1999-2001 **National Ocean and Atmospheric Association** Global Programs, Identification and modeling of seasonal to decadal timescale variations in the zonal currents of the central equatorial Pacific. ERM Druffel (lead PI), ST Gille (co-PI), AG Grottoli (co-PI) \$179, 675.
- 1999-2000 **Dreyfus Postdoctoral Fellowship** in Environmental Chemistry, AG Grottoli \$80,000.
- 1999-2000 PADI Foundation, Coral bleaching. AG Grottoli (sole PI) \$8,858.
- 1996-1998 **Environmental Protection Agency** Graduate Students to Achieve Results (STAR) Fellowship, Paleoclimate Reconstruction via Stable Carbon Isotopes ( $\delta^{13}$ C) in Reef Coral Skeletons. AG Grottoli \$75,000.

# PROPOSALS PENDING

- National Science Foundation DBI-IIBR: Infrastructure Innovation, Collaborative Research: IIBR Informatics: Towards accurate and low-cost underwater 3D modeling of living corals with applications to understanding their biomass and population dynamics. Lead PI: R Quin, Co-PIs: A Grottoli, J Porter (\$799,157)
- **Batelle BETHA**: Using Reefs to Communicate Science and Technology. Lead PI: L Babcock, Co-PIs: M Bevis, D Cole, A **Grottoli**, J Leonard-Pingel, M Daly (\$59,638)
- **Schmidt Ocean Institute**: Nutritional therapy for bleached corals: a novel Underwater Zooplankton Enhancing Light Array (UZELA) technology to stimulate coral feeding and increaser recovery rates from coral bleaching, minimize mortality, and save high value reefs. Lead PI: A **Grottoli**, co-PI: R Toonen (\$430,000)

# **TEACHING EXPERIENCE:**

(UG = undergraduate students, G = Graduate students, E = typical enrollment numbers)

# The Ohio State University (2005 – present):

Advanced Oceanography (UG, G, E25)

Principles of Oceanography (UG, E50)

Carbonate Geology (UG, G, E15)

Seminar Limnol. & Oceanogr (G, E8)

School of Earth Sciences Colloquium

Global & Environmental Change Div. Seminar

Intro to Earth System Science (UG, E150)

Stable Isotope Biogeochemistry (UG, G, E15)

Carbonate Geology Field Course (UG, G, E15)

Pauley Summer Research Program (G, E15)

Independent Study Mentor (UG, G)

University of Pennsylvania (2001 – 2004):

Carbon Isotope Geochemistry (G, E8) Recent Climate Change (G, E4)
Introductory Oceanography (UG, E200) Freshman Seminar in Oceanography (UG, E25)
Independent Study Mentor (UG, G)

# Adjunct Faculty (1998):

Evolution, California State U. - Los Angeles (UG, E40) Nutrition, Concordia University, Irvine, CA (UG, E20)

# Teaching Assistant at the University of Houston (1993-1996):

Ecology (teach/coordinate) Invertebrate Zoology (UG, E10) Genetics (UG, E20/section)

### Live Broadcast Teaching:

1996 JASON PROJECT VII Education program. 40 live broadcasts from Aquarius Habitat (NURC/NOAA), FL (see http://www.jason.org)

# OTHER PROFESSIONAL SYNERGISTIC ACTIVITIES AND RELATED EXPERIENCE:

# Workshops:

- 2018 OSU P&T Dossier Workshop for P&T Chairs. Ohio State University, 11 July
- 2017 OSU P&T Dossier Workshop for P&T Chairs, Ohio State University, 30 August
- 2017 OSU P&T VITA dossier writing workshop for P&T Chairs, OSU, 6 September
- 2016 US Investigators Coral Bleaching Workshop. Honolulu, HI (17-18 June)
- 2014 Big10 Academic Alliance Academic Leadership Program: Workshop on Money, Management, and Strategies. Champaign, IL (10-12 April).
- 2014 Big10 Academic Alliance Academic Leadership Program: Workshop on Internal and External Relationships in the University, Purdue University, West Lafayette, IN (6-8 Feb)
- 2013 Big10 Academic Alliance Academic Leadership Program: Workshop on Education, Community Engagement, and Diversity, Michigan State U., East Lansing, MI (3-5 Oct)
- 2013 Ocean Acidification in the Caribbean workshop. Mote Marine Lab, Sarasota, FL
- 2010 Organic Sustainability Grant Planning Meeting. Coshocton, OH
- 2006 Society of Sedimentary Geology (SEPM), course 19: Quaternary Reefs and Platforms: bridging the gap between ancient and the modern. invited speaker and panelist, American Association of Petroleum Geologists Conference, Houston, TX (April)
- 2004 International Coral Reef pre-Symposium Workshop: Global Change and Coral Reefs University of Tokyo, Japan
- 2004 Woodrow Wilson Career Enhancement Fellowship Fall Retreat. Princeton, NJ
- 2003 Coral Reefs, Climate, and Coral Bleaching Workshop (NOAA, DOI, EPA) (June), Turtle Bay, Hawaii
- 2003 CREWS: Caribbean Marine Research Center/ Lea Stocking Island (CMRC/LSI) Workshop on Combined factors on coral bleaching think-tank (January) Lea Stocking Island, Bahamas
- 2001 National Association of Geoscience Teachers Workshop for Early Career Faculty in Geosciences, Teaching, Research, and Managing, College of William and Mary
- 2001 Finnigan MAT Training Course, University of Ottawa, October
- 1994 Measurements of Ultraviolet Radiation in Tropical Coastal Ecosystems, University of Hawaii, Honolulu, HI, August 3-5
- 1994 Pauley Summer Program on Ultraviolet Radiation and Coral Reefs, Hawaii Institute of Marine Biology, HI, June-August

### *Outreach and Service* (see also Publicity and Media Outreach below for more):

2018 - 2019 Louis Stokes Alliances for Minority Participation (LSAMP) Mentor to Kiya Hailu -

- Program at OSU to increase underrepresented students in STEM fields
- 2018 OSU-Graduate Faculty Representative PhD final oral examination for Tingyang Zhou, Biophysics, July 13
- 2018 Judge for the 2018 Denmen Undergraduate Research Forum, The Ohio State University
- 2017 Expert discussion leader at the OSU SENR and Office of Energy and Environment's Environmental Film Series screening of the film "Chasing Coral", 30 Oct, Columbus, OH
- 2017 Expert discussion leader at First Unitarian Universalist Church screening of the film "Chasing Coral", 24 Sept, Columbus, OH
- 2017 OSU-Graduate Faculty Representative PhD final oral examination for Aimee Yoon, Sociology, June
- 2017 Judge for the 2017 Denmen Undergraduate Research Forum, The Ohio State University
- 2016 Interviewed by Olentangy Liberty High School student Amadi Ejouadi, December
- 2014 2016 Louis Stokes Alliances for Minority Participation (LSAMP) Mentor to Zuri Brooks Program at OSU to increase underrepresented students in STEM fields
- 2014 2015 Mentor to Postdoc Dr. Jeremy Williams through the Committee on Institutional Cooperation Professorial Advancement Initiative (CIC-PAI)
- 2014 2017 International Society for Reef Studies Council Member and Awards Committee Chair
- 2015 Host and organized SES Climate, Water, and the Environment Mini-Symposium (Oct)
- 2015 OSU-Graduate Faculty Representative PhD Final Oral Examination for Hsiaochi Chang, EEOB, May
- 2015 Judge for the 2015 Natural and Mathematical Sciences Undergraduate Research Forum, Ohio State University
- 2015 Hosted the Hawaii Institute of Marine Biology Field trip for OSU Alumni in Hawaii
- 2014 Host and organized SES Climate, Water, and the Environment Mini-Film Festival (Oct)
- 2014 Host biology Scholars Program Lab tour and Research experience talk, OSU, Oct
- 2014 OSU Welcome Commencement Speaker, August
- 2013 OSU-Graduate Faculty Representative PhD Final Oral Examination of Forrest Raffel, Integrated Biomedical Sciences, Dec
- 2012 Invited speaker at OSU-ASC Renaissance Rediscovery Alumni Program
- 2012 4Coral Research Group: Open House at the Reef Systems Coral Farm
- 2012 Invited speaker at Friendship Village of Columbus senior home for "Great Decisions" discussion on the state of the oceans, March
- 2012 Invited speaker at SCUBAFEST Ohio Coral conservation and diving
- 2012 OSU-Graduate Faculty Representative PhD Final Oral Examination of Ryan Harrison in Dept of Education, February
- 2010 2014 Young Ocean Explorers Program Director -Batelle Discovery Center
- 2011 Ocean Explorers Tank teacher training session at the Batelle Discovery Center
- 2011 Panelist for the Undergraduate Research Office's Faculty Perspectives on Undergrad. Research panel
- 2011 4Coral Research Group: Open House at the Reef Systems Coral Farm
- 2010 Biology Scholars Program Lab tour and undergrad research experience presentation, Jan
- 2010 Arts and Sciences Parental Leave Working Group member (May July), OSU
- 2010 Get a Passport Campaign feature, Office of International Affairs, OSU
- 2009 2010 School of Earth Sciences Webpage coordinator, The Ohio State University
- 2010 Judge for the 2010 Denman Undergraduate Research Forum, The Ohio State University
- 2009 OSU-Graduate Faculty Representative PhD Final Oral Examination in History, Sept

- 2009 Judge for the 2009 Undergraduate Research Forum, College of Mathematical and Physical Sciences, Ohio State University
- 2008 OSU-Graduate Faculty Representative PhD Final Oral Examination in Education, Sept
- 2008 Hosted a Summer Research Opportunity Program student Frances Lugo from Puerto Rico
- 2008 Judge for the 2008 Undergraduate Research Forum, College of Mathematical and Physical Sciences, Ohio State University
- 2008 Science Olympiad Oceanography Coach, Grandview Middle School
- 2007 Hawaii Institute of Marine Biology Pauley Summer Research Program, invited instructor
- 2007 Hosted a Summer Research Opportunity Program student Frances Lugo from Puerto Rico
- 2007 Judge for the 2007 Undergraduate Research Forum, College of Mathematical and Physical Sciences, Ohio State University
- 2007 Science Olympiad Oceanography Coach, Grandview Middle School
- 2007 Student Shadow for a day, 6<sup>th</sup> Grader Tyler Cleveland
- 2006 Dinner for 12 Strangers invited faculty guest, Ohio State University dinner with undergrads, alumni, and faculty
- 2006 Hosted the Hawaii Institute of Marine Biology Field trip for OSU Alumni in Hawaii
- 2006 Stone Lab Oceanography Field trip for undergraduate non-majors
- 2006 Judge for the 2006 Undergraduate Research Forum, College of Mathematical and Physical Sciences, Ohio State University
- 2005 Dominion Middle School, Gifted and Talented program. Presentation and discussion on coral reef conservation with 5<sup>th</sup> graders.
- 2005 Mainland Regional High School Learning about Science. All day interactive visit to three labs in geoscience and bioengineering.
- 2005 Women in Science lecture and discussion for grad/undergrad students
- 2005 New Jersey Aquarium field-trip for undergraduates
- 2003 Gender Equity Panel: panel discussion with undergraduates on women in academia
- 2004 Jersey Shore field-trip for undergraduates
- 2001-2005 Fisher-Hassenfeld House Faculty Fellow in residence full-time, 600 undergrads
- 2001-2005 Research and Careers in Marine Science yearly presentation and discussion with undergraduates
- 2003 Graduate School of Education: Global Climate and ENSO seminar.
- 2003 Healthy Food Choices in Dining: F-H House Healthy Living discussion group leader
- 2004 Penn Reading Project Discussion Group Leader (The Tipping Point, by Gladwell)
- 2003 Penn Reading Project Discussion Group Leader (The Quiet American, by Greene)
- 2002 Penn Reading Project Discussion Group Leader (When Things Fall Apart, by Achebe)
- 2001 Penn Reading Project Discussion Group Leader (Candide, by Voltaire)
- 2002 Women in Leadership Series: panel discussion on women in science with undergrads

#### Research Cruises:

- 2011 Mauii, R/V Ka`imikai-o-Kanaloa, Feb 24 Mar 4
- 2005 Gulf of Mexico, R/V Seward Johnson, Sept 15-20
- 2002 Gulfs of Panama and Chiriqui, R/V Urraca, July 19-26
- 2000 Eastern Atlantic, R/V Knorr, June 9- July 1
- 1999 North Central Pacific, R/V Melville, May 24-June 15

#### Panelist:

- 2018 Women in STEMM panelist, OSU STEMM Alumni Association
- 2016 National Science Foundation Biological Oceanography panel
- 2015 National Science Foundation Postdoctoral Research Fellow panel

- 2012 National Science Foundation Ocean Acidification panel
- 2012 Comprehensive Equity at Ohio State (CEOS) and the Women's Place: Budgeting and Grant Writing panelist
- 2011 Undergraduate Research Office's Faculty Perspectives on Undergrad. Research panel
- 2007 National Science Foundation Site review panel of the National Ocean Science Accelerator Mass Spectrometry (NOSAMS) facility at Woods Hole Oceanographic Institution, Oct
- Women in the Science Technology Engineering and Math (STEM) Fields panel: discussion on women in science with undergrads at OSU
- 2005 National Science Foundation Chemical Oceanography Review Panel
- 2004 Association of American Geographers Annual Meeting: Session 5505 Global Change and Geography of Individual Responsibility Panel, Philadelphia, PA
- 2003 Gender Equity Panel: panel discussion with undergraduates on women in academia
- 2002 Women in Leadership Series: panel discussion on women in science with undergrads

# Scientific Meeting Session Chair/co-Chair:

- 2018 Session co-chair, Assisted Evolution, Reef Futures 2018, Key Largo, FL (10-14 Dec)
- 2016 Executive Committee member US Investigators Coral Bleaching Workshop (17-18 June) Honolulu, HI
- 2016 Session co-chair and proceedings co-editor, 13<sup>th</sup> International Coral Reef Symposium: Session 36, Assessing and addressing the effects of multiple stressors on coral reefs towards developing effective management and policy responses.
- 2012 Session co-Chair and proceedings co-editor, 12<sup>th</sup> International Coral Reef Symposium: Coral Physiology session
- 2011 Session Chair, American Society of Limnology and Oceanography Meeting, Coral Session S36
- 2008 Session Chair, Ocean Sciences Meeting (AGU/ASLO), Coral Reefs Session 144
- 2006 Session Chair, Benthic Ecology Meeting, Reef Ecology Session
- 2004 Session co-chair and proceedings co-editor, 10<sup>th</sup> International Coral Reefs Symposium: Mini-Symposium on Corals as Recorders of Past Climate

# Visiting Researcher:

- 1994 1996, 2006-2007, 2014-2017, Hawaii Institute of Marine Biology Kaneohe, Hawaii
- 2013 Musée Océanographique, Centre Scientifique de Monaco, Monaco
- 2009 2011 ICMyL-UNAM Field Station, Puerto Morelos, Mexico
- 2008 El Verde Field Station, University of Puerto Rico, Puerto Rico
- 2006 Palau Coral Reef Research Foundation, Koror, Palau
- 2001 2003 Palau International Coral Reef Center, Koror, Palau
- 2001 2006 Department of Fish and Wildlife, Saipan, CNMI
- 2004 Dept Natural and Env. Res., Guanica Dry Forest and Marine Preserve, Puerto Rico
- 2002 Smithsonian Tropical Research Institute, Panama City, Panama
- 2001 University of Guam, Guam
- 2001 Lawrence Livermore National Laboratory, Livermore, CA
- 1997 Rosenstiel School of Marine and Atmospheric Science. U. of Miami, Miami, FL

#### Research Assistant:

1995 University of Houston / Rice University, Houston, TX

#### Lab technician:

1991 - 1992 McGill University undergraduate research technician, Montreal, Quebec, Canada

### **INVITED SPEAKER:**

2018 University of Toronto – Mississauga Center for Global Change Science Distinguished Lecture Series (Invited talk) Coral Reefs and Climate Change: How Will They Survive? (Jan) Advance Faculty Research Lecture Series – Ohio State University Journey of a Marine Scientist (Feb)

**Ohio Wesleyan University**, Westerville OH "Coral Reefs and Climate Change: Journey of a Marine Scientist" (Mar)

Ohio State University, 4<sup>th</sup> Annual ASC Campus Campaign Talent Show, Invited TED-style talk on *Coral Reefs and Climate Change*. (March)

**Current: Marine Biology at Ohio State**, Undergraduate Club, "Coral Reefs and Climate Change: Journey of a Marine Scientist" (Apr)

American Chemical Society, Chemical Abstracts Services Chemists Celebrate Earth Week, Columbus, OH *Coral Reefs and Climate Change: How Will They Survive?* (Apr) Sea Naggs Scuba Club, Columbus OH *Coral Resistance and Resilience to Climate Change* (Sept)

**Kent State University**, Department of Geology *Coral Carbon Budgets in the Face of Climate Change* (Sept)

**Hopkins Marine Laboratory of Stanford University**, Monterrey, CA *Coral Reefs and Climate Change: How Will They Survive?* (Nov)

- 2017 **Atlanta Reef Club**, Atlanta GA Coral Reefs and Climate Change: How will they survive? (July)
  - **University of Akron**, Department of Biology. *Corals and Climate Change* (March) **Ohio State University**, Dept Ecology, Evolution and Organismal Biology Intro Biology class special lecture. *Corals and Climate Change* (Feb)
- 2016 **Bennington College**, Department of Science and Math. *Corals and Climate Change* (Oct) **Coral Reef Task Force** Webinar. *Corals Coping with Climate Change* (April) **13**<sup>th</sup> **International Coral Reef Symposium**, Honolulu, HI. Invited Oral Presentation. *Combined responses of the coral microbiome and coral physiology to elevated temperature and pCO<sub>2</sub>*. (July)
  - **Sea Nags Scuba club**, Columbus, OH. *Corals and Climate Change* (September) **Ohio State University**, Dept Ecology, Evolution and Organismal Biology Intro Biology class special lecture. *Corals and Climate Change* (Feb)
- 2015 **TEDx OSU** speaker. *Our Coral Connection* (14 Feb 2015) http://tedx.osu.edu/ and https://www.youtube.com/watch?v=l0CwOQQiVWc
- 2014 **Ohio State University**, Welcome Commencement Speaker (25 August) https://www.facebook.com/osu/photos/a.10153110792798858.1073741863.6711658857/10153110798668858/?type=3&theater
- 2013 Centre Scientifique de Monaco. Monaco. Global Warming and Ocean Acidification: How will corals manage?
   Mote Marine Lab, Ocean Acidification Workshop. Sarasota, FL. Coral Resilience to conditions in 2100?
- **Bowling Green State University**, SETGO program, Bowling Green, OH. *Global Warming and Ocean Acidification: How will corals manage?*

**Otterbein College**, Department of Biology and Earth Science, Westerville, OH. *Global Warming and Ocean Acidification: How will corals manage?* 

**The Ohio State University**, ASC Renaissance Rediscovery Alumni Program, Columbus, OH. *Global Warming and Ocean Acidification: How will corals manage?* 

**The Ohio State University**, School of Earth Science, Columbus, OH. *Global Warming and Ocean Acidification: How will corals manage?* 

**University of Georgia**, Department of Marine Science, Athens, GA. *Global Warming and Ocean Acidification: How will corals manage?* 

**Northeastern University**, School of Marine Science, Boston, MA. *Global Warming and Ocean Acidification: How will corals manage?* 

Scubafest, Columbus, OH. Coral Reef Discovery and Conservation

2011 **University of Michigan**, Smith Lecturer, Department of Geological Sciences, Ann Arbor, MI (June). *Paleoceanography of the Western Tropical Pacific Warm Pool* 

**Université de Québec a Montréal**, GEOTOP, Montreal, PQ, Canada. *Paleoceanography of the Western Tropical Pacific Warm Pool* 

University of Delaware, College of Earth, Ocean, and the Environment, Lewes, DE. Coral bleaching: Resilience and Alternative Strategies: A better understanding of coral bleaching using stable carbon isotopes ( $\delta^{13}C$ )

**Ohio State University**, School of Environment and Natural Resources, Columbus, OH. *Coral bleaching: Resilience and Alternative Strategies* 

2010 ICMyL-UNAM Field Station, Faculty of Marine Sciences, Puerto Morelos, QR Mexico.

Carbon and Coral bleaching: Resilience and Alternative Strategies How stable isotopes shed light on physiological processes

**Ohio University**, Department of Geological Sciences, Athens, OH. *Coral bleaching:* Resilience and Alternative Strategies A better understanding of coral bleaching using stable carbon isotopes ( $\delta^{13}C$ )

**Ohio State University**, School of Earth Sciences mini-symposium, Columbus, OH. *The State of Coral Reefs*.

- 2008 **McGill University**, Department of Earth and Planetary Sciences, Montreal, PQ, Canada. Stable Carbon Isotopes ( $\delta^{I3}C$ ) in Corals and Sclerosponges: Implications for Paleoceanography and Biology
  - **USGS and University of South Florida** joint seminar, St. Petersburg, FL. *Stable Carbon Isotopes* ( $\delta^{l3}C$ ) in Corals and Sclerosponges: Implications for Paleoceanography and Biology
- 2007 **Harvard University**, Earth History and Paleobiology Series, Boston, MA. *Stable Carbon Isotopes* ( $\delta^{13}C$ ) in Corals and Sclerosponges: Implications for Paleoceanography and Biology

**College of Wooster**, Department of Geology, Wooster, OH. *Stable Carbon Isotopes* ( $\delta^{13}C$ ) in Corals and Sclerosponges: Implications for Paleoceanography and Biology

University of Hawaii, Hawaii Institute of Marine Biology, Kaneohe Bay, HI. Corals and sclerosponges as geochemical recorders of past climate change

2006 **SEMP** Quaternary Reefs and Platforms: invited speaker and panelist, American Association of Petroleum Geologists Conference, Houston, TX. *Corals and sclerosponges as geochemical recorders of past climate change* 

Ohio State University, Environmental Science Graduate Program, Columbus, OH. *Paleoceanography Using Stable Carbon Isotopes* ( $\delta^{13}C$ ) in Corals and Sclerosponges **Bowling Green State University**, Department of Biological Sciences, Bowling Green, OH. *Coral bleaching: Resilience and Alternative Strategies* 

**Ohio State University**, Dept Ecology, Evolution, and Organismal Biology (EEOB), Columbus, OH. *Coral bleaching: Resilience and Alternative Strategies* 

Ohio State University, School of Earth Sciences Brown Bag, Columbus, OH. Coral

bleaching Alternative Strategies, Resilience, and Isotopic Signatures

**University of Hawaii**, School of Ocean and Earth Science (SOEST), Honolulu, HI. *Coral bleaching: Resilience and Alternative Strategies* 

University of Hawaii, Hawaii Institute of Marine Biology, Kaneohe Bay, HI. Corals and sclerosponges as geochemical recorders of past climate change

**University of Cincinnati**, Department of Biology, Cincinnati, OH. *Heterotrophic Plasticity*, *Energy Reserves, and Resilience in Bleached Corals* 

- 2005 **State University of New York** Albany, Department of Earth and Atmospheric Sciences, Albany, NY. *Paleoceanography Using Stable Carbon Isotopes*  $(\delta^{13}C)$  *in Corals and Sclerosponges*
- 2004 **Pennsylvania State University**, Department of Geosciences, University Park, PA. Paleoceanography Using Stable Carbon Isotopes ( $\delta^{13}C$ ) in Corals and Sclerosponges **Washington Geological Society**, Washington, DC. Paleoceanography Using Stable Carbon Isotopes ( $\delta^{13}C$ ) in Corals and Sclerosponges

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**University of Texas Marine Science Institute** Schweppe Seminar Public Evening Lecture, Port Aransas, TX. *The Effect of Human Impacts and Coral Bleaching on Coral Reef Ecosystems: Implications for Coral Reef Conservation* 

**Association of American Geographers** Annual Meeting, Session 5505 Global Change and Geography of Individual Responsibility Panel, Philadelphia, PA. *Individual Responsibility and Global Climate Change*.

2003 **Rutgers University**, Institute of Marine Sciences, New Brunswick, NJ. *Carbon in corals and sclerosponges* 

**University of Maryland**, Department of Geology, College Park, MD. *Carbon in corals and sclerosponges*.

**Columbia University**, Lamont-Doherty Earth Observatory, New York, NY. *Carbon in corals and sclerosponges*.

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  - **Temple University**, Department of Geology, Philadelphia, PA. *Radiocarbon record in a Fanning Island coral: Inter-decadal variability in waters upwelling in the central equatorial Pacific from 1922-1956*
- 2000 **Florida International University**, Department Biological Sciences Seminar, West Miami, FL. *Interpretation of stable carbon isotopes in reef coral skeletons and application for paleoclimate reconstruction*.
  - University of Washington, Quaternary Research Center Seminar, Seattle, WA. Interpretation of stable carbon isotopes in reef coral skeletons and application for paleoclimate reconstruction.
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   University of California Irvine, Department of Ecology & Evolutionary Biology, Irvine, CA. Coral Reefs: Conservation and Global Change
- 1998 **University of California Irvine**, Department of Earth System Science, Irvine, CA. *Coral Reefs: Conservation and Global Change*
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- 2005 (30) \*Palardy JE, \*Rodrigues LJ, **Grottoli** AG. Feeding rates in healthy and bleached reefbuilding Hawaiian corals. Benthic Ecology Meetings, Williamsburg, VA
- 2005 (29) \*Rodrigues LJ, **Grottoli** AG. Energy reserves and metabolism in bleached and recovering *Porites compressa* and *Montipora capitata* corals from Hawaii. Benthic Ecology Meetings, Williamsburg, VA
- 2005 (28) **Grottoli** AG, Adkins JF, Moots K. Natural variability in skeletal growth rate, stable isotopes, and Sr/Ca composition in two species of Pacific sclerosponges (*Acnathocheatetes wellsi* and *Astroclera welleyana*). Benthic Ecology Meetings, Williamsburg, VA
- 2004 (27) \*Rodrigues LJ, **Grottoli** AG. Stable oxygen ( $\delta^{18}$ O) and carbon ( $\delta^{13}$ C) isotopes in the skeleton of bleached and recovering corals from Hawaii. American Geophysical Union Fall Meeting, San Francisco, CA, B14B-08
- 2004 (26) \*Matthews K, **Grottoli** AG, McDonough WF, \*Palardy JE. Natural variability of environmental proxies in corals from an upwelling region. American Geophysical Union Fall Meeting, San Francisco, CA PP23B-1429
- 2004 (25) **Grottoli** AG. Stable carbon isotopes ( $\delta^{13}$ C) in coral skeletons: experimental approach and applications for paleoceanography. American Geophysical Union Fall Meeting, San Francisco, CA, B14B-07
- 2004 (24) \*Rodrigues LJ, **Grottoli** AG. Lipids, carbohydrates, and proteins in bleached and recovering corals from Kaneohe Bay, Hawaii. 10<sup>th</sup> International Coral Reef Symposium, June 28-July 2 Okinawa, Japan
- 2004 (23) \*Palardy JE, **Grottoli** AG, \*Matthews K. The effect of morphology, polyp size and depth on feeding in three species of Panamanian corals. 10<sup>th</sup> International Coral Reef Symposium, June 28-July 2 Okinawa, Japan
- 2004 (22) **Grottoli** AG, Gibb O. Stable carbon isotope records in a Palau sclerosponge. 10<sup>th</sup> International Coral Reef Symposium, June 28-July 2 Okinawa, Japan
- 2004 (21) \*Matthews KA, **Grottoli** AG, McDonough WF, \*Palardy JE. The effect of upwelling, species and depth on the natural variability of cadmium in three species of Panamanian corals. 10<sup>th</sup> International Coral Reef Symposium, June 28-July 2 Okinawa, Japan
- 2004 (20) **Grottoli** AG. Stable carbon isotopes ( $\delta^{13}$ C) in corals: An experimental approach and applications for paleoceanography. Goldschmidt Conference, Copenhagen, Denmark. Abstract # 0.0.12. Geochimica et Cosmochimica Acta 68(11):A22 supp
- 2004 (19) **Grottoli** AG, Gibb O. Stable carbon and oxygen isotope records in a Palau sclerosponge. Goldschmidt Conference, Copenhagen, Denmark. Abstract # 4.63.25, Geochimica et Cosmochimica Acta 68(11): A474 supp
- 2004 (18) **Grottoli** AG. River discharge and coral reefs: effects of terrestrially derived sediments on corals in the Guanica Preserve, Puerto Rico over the past century. Woodrow Wilson National Fellowship Retreat. Princeton, New NJ, Oct 2004.
- 2004 (17) Palardy JE, **Grottoli** AG, \*Matthews K. The effect of morphology, polyp size and depth on feeding in three species of Panamanian corals. The 33rd Annual Marine Benthic Ecology Meeting, Mobile Alabama. March 26-28. Abstract 10362
- 2004 (16) Grottoli AG, \*Rodrigues LJ, \*Juarez C. Effect of bleaching on the coral host total lipid

- content, lipid class composition, and skeletal stable isotopic composition. The 1<sup>st</sup> Annual Combined Effects Think Tank to Support CREWS Modeling. March 2003, LSI Bahamas.
- 2003 (15) †Hönisch B, Hemming NG, **Grottoli** AG, Amat A, Hanson GN, Bijma J. The effect of light, respiration and *p*CO<sub>2</sub> on δ<sup>11</sup>B in coral skeletons: results from culture and field experiments. European Geological Society American Geophysical Union Joint Assembly, Nice, France.
- 2003 (14) **Grottoli** AG, Gibb O, Wellington GM. Pre-treatment effects on coral skeletal  $\delta^{13}$ C and  $\delta^{18}$ O. American Geophysical Union Fall Meeting, San Francisco. Abs. PP11A-0198
- 2002 (13) **Grottoli** AG. Stable carbon isotope record in a Palau Sclerosponge. American Geophysical Union Fall Meeting, San Francisco. PP51A-0287
- 2002 (12) \*Rodrigues LJ, **Grottoli** AG, \*Juarez C. Effect of bleaching on lipid biomass in two Hawaiian coral species. American Society of Limnology and Oceanography and American Geophysical Union Ocean Sciences Meeting 2002, Honolulu Abs. OS21F-124
- 2002 (11) Grottoli AG, Gille ST, Druffel ERM, Dunbar RB. Radiocarbon in a Fanning Island coral: inter-decadal variability in waters upwelling in the central equatorial Pacific from 1922 1955. American Society of Limnology and Oceanography and American Geophysical Union Ocean Sciences Meeting 2002, Honolulu.
- 2000 (10) **Grottoli** AG, Druffel ERM, Gille ST, Dunbar RB. Identification of seasonal-to-decadal timescale variations in the zonal currents of the central equatorial Pacific prior to 1955 using  $\Delta^{14}$ C in coral. American Geophysical Union Fall Meeting, San Francisco. Abs. OS22H-02
- 2000 (9) **Grottoli** AG, Druffel ERM, Gille ST, Dunbar RB. Identification of seasonal to decadal timescale variations in the zonal currents of the central equatorial Pacific prior to 1955 using  $\Delta^{14}$ C in coral. 9<sup>th</sup> International Coral Reef Symposium, Bali, Indonesia. Abs. A17.16
- 2000 (8) **Grottoli** AG. Stable carbon isotopes in coral skeletons. American Society of Limnology and Oceanography and American Geophysical Union Ocean Sciences Meeting, San Antonio, TX Abs. OS21N-04
- 2000 (7) \*Juarez C, **Grottoli** AG. Lipid concentrations in bleached and non-bleached Hawaiian corals. UC-Irvine Undergraduate Research Forum.
- 1999 (6) **Grottoli** AG. Interpretation of stable carbon isotopes in reef coral skeletons and applications for paleoclimate reconstruction. Dissertation Initiative Advancement of Limnology and Oceanography (DIALOG III) p.56
- 1999 (5) **Grottoli** AG. Interpretation of stable carbon isotopes in reef coral skeletons and applications for paleoclimate reconstruction. Dissertation Symposium on Chemical Oceanography (DISCO XV), Honolulu, HI p.6
- 1998 (4) **Grottoli** AG. Coral skeletal  $\delta^{13}$ C as a paleo-tracer of solar irradiance levels and zooplankton concentrations: an experimental approach. American Geophysical Union Fall Meeting, San Francisco. Abstract OS41A-10
- 1997 (3) **Grottoli**-Everett AG. Effect of irradiance and heterotrophy on the stable carbon isotopic  $(\delta^{13}C)$  composition of scleractinian corals. United States Environmental Protection Agency Science to Achieve Results (STAR) Graduate Fellowship Program: Technical Conference, June 16-17, Research Triangle Park, North Carolina. EPA/600/R-97/049, p70
- 1996 (2) **Grottoli**-Everett AG, Wellington GM. Effect of light and zooplankton on skeletal δ<sup>13</sup>C in the eastern Pacific corals *Pavona clavus* and *P. gigantea*. 8<sup>th</sup> International Coral Reef Symposium, Panama. Abstract p. 78
- 1996 (1) **Grottoli**-Everett AG. The effect of bleaching on lipid levels in the coral *Montipora verrucosa*. American Society of Zoologists, St. Louis, MO. Abstract in: American Zoologist 34(5):70a

### **MEETINGS ATTENDED:**

8<sup>th</sup> -13<sup>th</sup> International Coral Reef Symposium 1996, 2000, 2004, 2008, 2012, 2016

American Association for the Advancement of Science Meeting 2018

Metaphors of Time 2018

Ocean Acidification PI Meeting (NSF-OCB) 2013

The Ocean in a High-CO2 World 3<sup>rd</sup> International Symposium (2012)

Ocean Sciences Meeting (ASLO/AGU) 2000, 2002, 2006, 2008, 2010

American Geophysical Union Fall Meeting (AGU) 1999, 2001 – 2005, 2011

American Society of Limnology and Oceanography (ASLO) Meeting 2007, 2009, 2011

Goldschmidt Conference 2004

Benthic Ecology Meeting 2005, 2006

Dissertation Symposium on Chemical Oceanography (DISCO XV) 1999

Environmental Protection Agency (EPA) Technical Conference 1997

American Society of Zoologists Meeting 1994

### **MEMBERSHIPS:**

International Society for Reef Studies

American Society of Limnology and Oceanography

American Association for the Advancement of Science

Geochemical Society

American Geophysical Union

The Ohio Academy of Sciences

Sigma Xi

# **PUBLICITITY and MEDIA OUTREACH:**

- 2002 Interviewed and quoted in "Female Profs Talk About Their Careers" Daily Pennsylvanian (Feb)
- 2003 Interviewed and quoted in "Science Lacking in Female Faculty" Daily Pennsylvanian (Oct 29)
- 2003 Interviewed and quoted in "Female Faculty Panel Addresses Gender Equity Issues" Daily Pennsylvanian
- 2005 Interviewed and quoted in "Carbon Counter: The Undersea/Oversea World of Andrea Grottoli" PENN Arts and Science Magazine (Winter)

### 2006 *Grottoli et al (2006) Nature* paper media coverage:

a) Radio Interviews

NPR interview (Science Fridays Talk of the Nation) (28 April):

www.npr.org/templates/story/story.php?storyId=5369310

Quirks and Quarks radio show interview (CBC Radio Canada)

www.cbc.ca/quirks/media/2005-2006/mp3/qq-2006-05-06c.mp3

Earth Watch Radio: www.ewradio.org/

b) Selected Press Interviews and Other Press Coverage

Science (AAAS) online: sciencenow.sciencemag.org/cgi/content/full/2006/426/5

Discovery Channel News: dsc.discovery.com/news/briefs/20060501/coral\_pla.html

Christian Science Monitor: www.csmonitor.com/2006/0427/p16s01-stss.html

Nature News online: www.nature.com/news

Scientific American: www.sciam.com/article.cfm?articleID=0006FE01-D35E-144F-935E83414B7F0000&sc=I100322

The Daily Grist: www.grist.org/news/daily/2006/04/27/3/index.html

News Wise.com: newswise.com/articles/view/519896/

The Washington Post

Columbus Dispatch: www.dispatch.com/science/science.php?story=dispatch/2006/05/02/20060502-B5-05.html

Belgian popular-scientific monthly Eos-magazine: www.eos.be

 $Global\ Water\ News\ Watch:\ {\it www.sahra.arizona.edu/cgi-bin/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/newsclips/ne$ 

OSU Research News: researchnews.osu.edu/archive/corlblch.htm

OSU Today and front page of main the OSU website

College of MAPS News, Ohio State University

Dive Training (Magazine), quoted in "A Whiter Shade of Corals" by Greg Laslo.

September 2007, vol 17, Issue 9, page 22.

2008 Media coverage of research presented at the Ocean Sciences meeting

Press Conference held Tuesday, March 4 at 10am

Science Daily: www.sciencedaily.com/releases/2008/03/080304101436.htm

Physorg.com: www.physorg.com/news123850507.html

Newswise.com: www.newswise.com/articles/view/538254/?sc=rssn

2008 LaVigne et al. (2008) Geophysical Research Letters media coverage:

AGU Editor's Choice highlights: www.agu.org/journals/scripts/highlight.php?pid=2007GL031926

Science Magazine Editor's Choice vol 319:1590-1591: www.sciencemag.org

- National Science Foundation Multimedia Communications interview for 14-part video series on "To What Degree: What Science Tells us About Climate Change" produced for the Research Channel. www.researchchannel.com
- Interviewed and quoted in: "Mission: implausible: the desperate plight of coral reefs has led to some extraordinary rescue plans. Mark Schrope weighs them up." By Mark Schrope. New Scientist 200.2678 (Oct 18): p28(4)
- Research featured in Global Perspective (OSU Office of International Affairs publication) at <a href="http://oia.osu.edu/global-perspectives/1638-global-perspectives-spring-2010-newsletter-.html#coral">http://oia.osu.edu/global-perspectives/1638-global-perspectives-spring-2010-newsletter-.html#coral</a>
- Field research experience for undergrads featured by Office of International Affairs Get a Passport campaign. Posters were displayed on campus buses and at other locations.
- Interviewed and quoted for Portuguese e-news (PÚBLICO www.publico.pt) about coral bleaching research in Mexico by Helena Geraldes and publication in online and print newspaper in Lisbon, Portugal. http://ecosfera.publico.pt/biodiversidade/Details/nas-caraibas-existem-corais-que-conseguem-sobreviver-ao-calor\_1445618
- 2010 Williams & Grottoli (2010) Geophysical Research Letters media coverage:

 $Radio\ interview\ with\ Australian\ Broadcasting\ Company\ {\it www.radioaustralia.net.au/pacbeat/stories/201010/s3037923.htm}$ 

Nature highlights (2010, 467:886): http://www.nature.com/nature/journal/v467/n7318/full/467886a.html

AGU press release Oct 2010 No. 10-32, http://www.agu.org/news/press/pr\_archives/2010/2010-32.shtml

 $Msnbc: \ {\it http://www.msnbc.msn.com/id/39638641/ns/technology\_and\_science-science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/science/s$ 

 $World\ News: \ {\it http://article.wn.com/view/2010/10/12/Coral\_records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_with\_global\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/records\_show\_ocean\_thermocline\_rise\_warmin/rec$ 

USA today: http://content.usatoday.com/communities/sciencefair/post/2010/10/coral-climate-change/1

Science daily: http://www.sciencedaily.com/releases/2010/10/101011220123.htm

Eurekalert: http://www.eurekalert.org/pub\_releases/2010-10/osu-crs101210.php

Pollution online: http://www.pollutiononline.com/article.mvc/Coral-Records-Show-Ocean-Thermocline-Rise-0001?VNETCOOKIE=NO

X-journals: http://x-journals.com/2010/coral-records-show-ocean-thermocline-rise-with-global-warming/

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Blog post: www.shamskm.com/blogs

Climate World Wide after 2009: http://www.cwwa2009.com/climate-change/coral-records-show-ocean-thermocline-rise-with-global-warming/

Summit County Voice: http://summitcountyvoice.com/2010/10/13/global-warming-pacific-ocean-thermocline-shifting/

Laboratory Equipment: http://www.laboratoryequipment.com/News-global-warming-causes-ocean-temperature-change-101310.aspx?xmlmenuid=51

Our Amazing Planet: http://www.ouramazingplanet.com/tropical-coral-ocean-circulation-101012-0630/

Tree Hugger: http://www.treehugger.com/files/2010/10/corals-reveal-changes-in-ocean-circulation-prove-climate-modelers-correct.php

Ocean Leadership: http://www.oceanleadership.org/2010/coral-records-show-ocean-thermocline-rise-with-global-warming/

OSU: http://oncampus.osu.edu/osutoday/102010/10212010.php

2010 Press release for NSF-funded OA research (Oct)

www.nsf.gov/news/news\_summ.jsp?cntn\_id=117823&org=NSF&from=news

2011 Edge of Light: OSU Video Feature of Grottoli coral research

https://www.osu.edu/features/2011/edgeoflight.html

- Interviewed and featured in "An Ocean of Trouble" article by Dylan Tussel in the Columbus 2011 Dispatch http://www.dispatch.com/content/stories/science/2011/08/14/an-ocean-of-trouble.html
- Interviewed by American Reef for Ocean Acidification and Global Warming Coral Project 2011 research (full video available)

Part I http://www.fishnetwork.tv/AdvancedAquarist/AdvancedAquarist/AmericanReef\_-

\_\_Advanced\_Aquarists\_Edition/Entries/2011/8/15\_A\_Day\_with\_Sanjay\_-\_Part\_II\_2.html
Part II http://www.fishnetwork.tv/AdvancedAquarist/AdvancedAquarist/AmericanReef\_\_
\_Advanced\_Aquarists\_Edition/Entries/2011/9/20\_Part\_II\_\_Can\_Coral\_Reefs\_Survive\_Ocean\_Acidification\_and\_Global\_Warming\_2.html

- 2009 present Micro-blog of ongoing coral research at www.twitter.com/CoralResearch
- EPA STAR interview (Jan) "Fellow Success Story" http://www.scgcorp.com/fellowship/ 2014
- Interview with Mary McLaughlin, assistant to Franklin County Commissioner Paula Brooks 2014 on the Presidential Task Force on Climate Preparedness and Resilience, about the impact of ocean acidification and global change on Ohio (9 April)
- Interview with high school student Zain about ocean acidification and global change (4 April) 2014
- *Grottoli et al.* (2014) Global Change Biology media coverage: 2014

OSU Press release http://news.osu.edu/news/2014/07/09/corals-adapting-to-climate-change/

NSF Science 360 Breaking news cover story

http://news.science360.gov/obj/story/b1df6bcb-c9ec-4a67-aa20-e493c8fe3e41/corals-adapting-climate-change-survival-fattest-flexible

Science News SciGuru.com

http://www.sciguru.com/newsitem/17475/corals-adapting-climate-change-it-s-survival-fattest-and-most-flexible

Smithsonian.com www.smithsonianmag.com/science-nature/fat-corals-fare-best-climate-changes-180951986/

Ensia article http://ensia.com/features/how-we-can-save-coral-reefs-and-why-we-should-want-to/

- 2014 Grottoli undergraduate student Casey Saup featured in OSU College of Arts and Sciences current student Research Profile https://artsandsciences.osu.edu/current-students/beyond-the-classroom/undergrad-research/profiles2
- 2014 Interview with high school student Leah Solomon for feature in the Westfall High School newspaper The Echo 50(3):5 http://www.westfallschools.com/Downloads/November%20Publication.pdf.
- 2015 Interviewed and featured in "Ohio State, U. Hawaii Scientists Test Ability Of Corals To  $Adapt\ To\ Acidification"\ by\ Daniel\ Kelly,\ Environmental\ Monitor\ (Sept).$   ${\tt http://www.fondriest.com/news/ohio-state-hawaii-scientists-test-ability-corals-adapt-acidification.htm}$
- 2015 TEDx OSU invited speaker (14 Feb) Our Coral Connection, http://tedx.osu.edu/2015-speakers/
- Schoepf et al. (2015) Proceedings of the Royal Society B media coverage: 2015

OSU press release https://news.osu.edu/news/2015/11/17/fatcoralfit/

UWA press release http://www.abc.net.au/news/2015-11-18/annual-bleaching-could-have-coral-reefs-in-hot-water/6948254

U Delaware press release http://www.udel.edu/udaily/2016/nov/coral-fat-bleaching-111815.html

Press release point http://www.pressreleasepoint.com/research-uncovers-how-some-coral-can-survive-annual-bleaching-events

Science World Report http://www.scienceworldreport.com/articles/33224/20151118/coral-bleaching-survived-fatter-corals-face-climate-change.htm

 $Practical\ Fish keeping\ {\it http://www.practicalfishkeeping.co.uk/content.php?sid=6916}$ 

Gulf News http://gulfnews.com/weekend-review/science-technology/creating-coral-that-can-survive-climate-change-1.1622027

Customs Today http://www.customstoday.com.pk/annual-bleaching-could-threaten-some-species-of-tropical-coral-study/

International Business Times http://www.ibtimes.com.au/corals-high-levels-fat-can-withstand-bleaching-events-study-1484083

 $Science\ Codex\ {\it http://www.sciencecodex.com/fat\_makes\_coral\_fit\_to\_cope\_with\_climate\_change-169997}$ 

Environmental Monitor http://www.fondriest.com/news/coral-with-higher-fat-reserves-more-likely-to-survive-bleaching.htm

 $ABC\ The\ Drum\ {\it http://www.abc.net.au/news/2015-11-18/annual-bleaching-could-have-coral-reefs-in-hot-water/6948254}$ 

 $Eureka Alert! \ {\it http://www.eurekalert.org/pub\_releases/2015-11/osu-fmc111315.php}$ 

ClimateWire http://www.eenews.net/climatewire/2015/11/19/stories/1060028287

ABC Radio Geraldton, Australia 17-11-15 http://www.abc.net.au/news/2015-11-19/fat-coral-have-better-sunvival-chance-researchers-say/6956662?site-wwheatbelt

RTR FM 92.1 Perth. Australia, The Mag Show 23-11-15 http://rtrfm.com.au/shows/mag?an\_page=2015-11-23

- "As the Earth enters its third mass bleaching event, will corals survive?" by Andrea Grottoli 2015 (20 Nov 2015) The Conversation https://theconversation.com/as-the-earth-enters-its-third-mass-bleaching-event-willcorals-survive-50740
  - 7,966 unique reads
  - republished by IFLScience, The Huffington Post, Honolulu Civil Beat, Epoch Times
- Interviewed and quoted in "Warm El Nino Water Killing Pacific Corals" by Eric Niller (2 2015 Dec 2015), Discovery News http://news.discovery.com/earth/weather-extreme-events/warm-el-nino-water-killingpacific-corals-151202.htm
- Interviewed and featured in "Resilient Reefs" by D Kelly Environmental Monitor. Winter 2016 2016, p.47-48.
- Interviewed and quoted in "Corals Experiencing Record-long Bleaching from El Nino" by 2016 Pola Lem in ClimateWire (25 Feb 2016) http://www.eenews.net/climatewire/2016/02/25/stories/1060032975
- 2016 "Corals and Ocean Acidification" by Karen B. Roberts, Press release for Nature Communications paper (Cai et al 2016) OA-ICC (IAEA)

UD press release http://www.udel.edu/udaily/2016/apr/coral-ph-ocean-acidification-040416.html

- Interviewed and quoted in "Coral researchers look for ways to connect science" by Pola Lem, 2016 in ClimateWire http://www.eenews.net/climatewire/stories/1060035232 (7 April)
- 2016 Interviewed and quoted in "Shocking Before-and-After Photos of the World's Coral Bleaching Catastrophe" by Claudia Geib in Atlas Obscura (19 April) http://www.atlasobscura.com/articles/shocking-before-and-after-photos-of-the-worlds-coral-bleaching-catastrophe
- Interviewed and quoted in "What we can learn from watching video of coral lose its color" by 2016 Joseph Dussault, Christian Science Monitor (18 Aug) http://www.csmonitor.com/Environment/2016/0818/What-we-can-learn-from-watching-video-of-coral-lose-its-color
- Interviewed on Press Play with Madeleine Brand (KCRW in Los Angeles, CA) about "Is the 2016  $Great\ Barrier\ Reef\ really\ dead?"\ (16\ Oct\ 2016)\ http://www.kcrw.com/news-culture/shows/press-play-with-madeleine-brand/mayor-garcetti-on-the-future-of-la-development\ and\ scroll\ down\ to\ RIP\ Great\ Barrier\ Reef$
- 2016 Interviewed by Eric Niller and quoted in "Climate Scientists Fear Trump Budget Cuts and Wonder What He Really Believes" Seeker 7 Dec 2016 http://www.seeker.com/climatescientists-fear-trump-budget-cuts-and-wonder-what-he-really-be-2134130758.html
- 2017 Interviewed by Eva Botkin-Kowacki and quoted in "From coral sperm banks to climate action: What's best to save reefs?" Christian Science Monitor, July 2017, https://www.csmonitor.com/Environment/Inhabit/2017/0713/From-coral-sperm-banks-to-climate-action-What-s-best-to-save-reefs?cmpid=push013s
- Grottoli AAAS Fellow media coverage: 2017

AAAS 2017 Fellows https://www.aaas.org/page/2017-fellows

"Two Arts and Sciences faculty members named 2017 AAAS Fellows" https://artsandsciences.osu.edu/news/arts-and-sciences-faculty-members-named-2017-aaas-fellows

"Dr. Andrea Grottoli named 2017 AAAS Fellow" School of Earth Sciences Alumni News Notes (Nov 2017) https://earthsciences.osu.edu/alumni/2017-alumni-news-notes

AAAS names four Ohio State faculty as 2017 Fellows

https://news.osu.edu/news/2017/11/20/2017-aaas-fellows/

SES News "Professor Andrea Grottoli named AAAS Fellow"

https://earthsciences.osu.edu/news/professor-andrea-grottoli-named-aaas-fellow

Interviewed by Eva Botkin-Kowaski and quoted in "Can 'super-corals' save the reefs?" Christian Science Monitor, Dec 2017,

https://www.csmonitor.com/Environment/2017/1228/Can-super-corals-save-the-reefs?cmpid=push013s

### 2018 Grottoli et al (2018) PLoS ONE media coverage:

OSU press release https://news.osu.edu/news/2018/01/22/coralbiome/

School of Earth Sciences News https://earthsciences.osu.edu/news/new-study-coral-micorbiome-and-climate-change

Newswise http://www.newswise.com/articles/view/688250/

EurekaAlert! https://www.eurekalert.org/pub\_releases/2018-01/osu-hcc012218.php

PhysOrg https://phys.org/news/2018-01-climate-weakens-coral-immune.html

Science Daily https://www.sciencedaily.com/releases/2018/01/180122150021.htm

R&D Magazine - Online https://www.rdmag.com/news/2018/01/how-climate-change-weakens-coral-immune-systems

ScienceNewsline http://www.sciencenewsline.com/news/2018012216470042.html

Environment Guru https://www.environmentguru.com/pages/elements/element.aspx?id=6025659

Ocean Sentry http://www.oceansentry.org/climate-change-weakens-coral-immune-systems

 $Health\ News\ Digest\ {\it http://www.healthnews digest.com/news/Environment\_380/How-Climate-Change-Weakens-Coral-Immune-Systems.shtml}$ 

Earth.com https://www.earth.com/news/corals-weaker-immunity-climate/

Lab Manager Magazine http://www.labmanager.com/news/2018/01/how-climate-change-weakens-coral-immune-systems-#.Wmn\_oFMbNRA

Global News Connect http://globalnewsconnect.com/how-climate-change-weakens-coral-immune-systems/

Science Newsline Biology http://www.sciencenewsline.com/news/2018012216470042.html

Long Room https://www.longroom.com/discussion/853097/how-climate-change-weakens-coral-immune-systemS

Latest Headlines http://latest-headlines.com/news/957355/how-climate-change-weakens-coral-immune-systems

My News https://my-news-site.com/news/282360/how-climate-change-weakens-coral-immune-systems

WorldScience https://voat.co/v/WorldScience/2353843

 $News\ Collected\ {\it http://www.newscollected.com/newsarticles/how-climate-change-weakens-coral-immune-systems}$ 

Parallelstate https://www.parallelstate.com/news/how-climate-change-weakens-coral-immune-systems/610140

Technology.org https://www.technology.org/2018/01/23/how-climate-change-weakens-coral-immune-systems/?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+Technology.org+%28Technology+0rg+-+All+News%29

Science360News Picture of the Day https://news.science360.gov/obj/pic-day/f48dfa58-e6f1-4ad7-9620-97fd5a987aa3/understanding-coral-immune-systems

Ocean acidification News stream https://news-oceanacidification-icc.org/2018/01/24/how-climate-change-weakens-coral-immune-systems/ Microbiome Digest https://microbiomedigest.com/2018/01/18/january-18-2018/

- Interviewed by Jason G. Goldman and quoted in "Even Corals Have Microbiomes", Hakai Magazine, February 2018 https://www.hakaimagazine.com/news/even-corals-have-microbiomes/
- 2018 Interviewed by Amelia Urry and quoted in "Can Coral Microbes Protect Reefs from Climate Change?", Oceans Deeply, March 2018, https://www.newsdeeply.com/oceans/articles/2018/03/13/can-coral-microbes-protect-reefs-from-climate-change
- Interviewed by Amelia Urry and quoted in "There's still time for us to save the Great Barrier Reef", Popular Science, April 2018, https://www.popsci.com/great-barrier-reef-adaptation-survival
- 2018 Batelle Podcast Interview on "Ocean Pollution, Coral Bleaching, and the Great Pacific Garbage Patch" by Samuel Bodary, June 2018
- 2018 Interviewed by 6<sup>th</sup> Grader Alexios Dulcinea on corals and climate change
- 2018 Interviewed by Emily Portecorvo at AGU Dec 2018, for publication in EOS
- 2019 Interviewed by Michael Doyle and quoted in "Science shutdown an experiment in fear, frustration", Jan 2019, https://www.eenews.net/greenwire/stories/1060111701

### **REVIEWER FOR:**

#### Funding agencies:

National Science Foundation (Division of Ocean Sciences)

National Ocean and Atmospheric Association (NOAA)

NERC - Natural Environment Research Council of the UK

Caribbean Marine Research Center, a NOAA/NURC program

BARD, the United States - Israel Binational Agricultural Research & Development Fund Netherlands Organization for Scientific Research (NWO) Climate Variability Program The Leverhulme Trust OITI Report (NSF, ONR)

### Journals:

Palaios Marine Ecology Progress Series
Geology Journal of Geophysical Research
PLoS ONE Geochimica et Cosmochimica Acta
Science (AAAS) Estuarine, Coastal and Shelf Science

Marine Biology Frontiers in Marine Science

Chemical Geology
Paleoceanography
Scientific Reports
Nature Climate Change
Science Advances
Nature Communications
Current Biology
Geophysical Research Letters
ISME Journal

Limnology and Oceanography

Marine and Freshwater Behavior and Physioloty Palaeogeography, Palaeoclimatology, Palaeoecolog Journal of Experimental Marine Biology and Ecology Proceedings of the National Academy of Sciences (PNAS)

Coral Reefs (Journal of the International Society for Coral Reef Studies)

### **COLLABORATORS** (in addition to co-authors):

T Darrah, C Ferrier-Pages, E Griffith, C Jury, P Marko, C Saenger, L Thompson, R Toonen, R vanWoesik, R Vega Thurber

### COMMITTEES AT OHIO STATE UNIVERSITY:

2018-	Arts and Sciences Investigation Committee, Member
2017 -	SES Promotion and Tenure Committee, Chair
2017 -	SES Administrative Committee, Member
2017 -	SES Faculty Evaluation Committee, Member
2017 -	OSU Research Committee (URC), Member
2017 -	SES Mentor Committee for Elizabeth Griffith, Co-Mentor
2014 -	SES Mentor Committee for Audrey Sawyer, Co-Mentor
2013 - 2018	SES Mentor Committee for Michael Wilkins, Co-Mentor
2013 - 2017	SES Technical support in geochemistry committee, Chair
2015 - 2017	OSU Senate Steering Committee and Senate Executive Council
2014 - 2017	OSU Faculty Senator and Faculty Council, Member
2008 - 2016	SES Division of Water, Climate and Env. Mini-Symposium, Chair
2015 - 2016	Global Water Institute committee, Member
2015 - 2016	OSU Graduate Council, Member
2013 - 2016	SES Faculty Evaluation Committee, Member
2013 - 2016	SES Promotion and Tenure Committee, Member
2010 - 2016	SES Advisory Committee to the Director, Member
2011 - 2012	SES Concentration: Earth System Science program development, Chair
2011	SES Guidelines on Emeritus Space and Resources committee, Chair

2010	CAS (College of Arts & Sciences) Parental Leave Working Group, Member
2009 - 2011	SES Webpage development, Chair
2009 - 2010	SES Curriculum Committee, Member
2009	EEOB Plant Ecologist Search Committee, Member
2007 - 2008	SES Graduate Committee, Member
2007 - 2008	SES Colloquium Committee, Member
2007	SES Division of Water, Climate and Environment Seminar, Coordinator
2005 - 2012	SES Health and Safety committee, Member
2005 - 2007	SES Curriculum Committee, Member
2005 - 2007	SES Major in Oceanography program development, Chair
2001 - 2004	U. Pennsylvania Institute for Environmental Studies Advisory Board, Member
2002 - 2004	U. Pennsylvania Masters of Environmental Science, Faculty Advisor
2003	U. Pennsylvania Instrumentation Acquisition Committee in Earth Sci, Member

### MAJOR STUDENT OR POSTDOC ADVISOR TO:

#### PhD students

### 1) **James Price** (candidate)

Dissertation: Coral microbiome under climate change conditions and potential for acclimation Awards: OSU first year graduate fellowship, ISRS Graduate Scholarship, GSA Award, Friends of Orton Hall

# 2) **Rowan McLachlan** (candidate)

Dissertation: Coral adaptation and acclimatization to global change

Awards: Scottish International Education Trust, OSU Sigma Xi, National Sigma Xi, Friends of Orton Hall, Sutherland-Page Trust Scholarship

# 3) **Kerri Dobson** (candidate)

Dissertation: Multiple stressor effects on corals

Awards: National Sigma Xi, Alumni Grants for Graduate Research and Scholarship, Friends of Orton Hall

### 4) **Geoffrey Dipre** (candidate)

Dissertation: A reconstruction of quaternary Arctic environments using a multi-proxy analysis of Arctic Ocean sediment cores

Awards: University Fellow, AMS Summer Policy Colloquium, Rick Toracinta Graduate Scholarship

### 5) **Verena Schoepf** (PhD 2013)

Dissertation: Physiology and Biogeochemistry of Corals Subjected to Repeat Bleaching and Combined Ocean Acidification and Warming

Awards: Ohio State University Presidential Fellow, Lee Fund Fellow, Rotary Club Innsbruck Research Fellowship, Mayer Travel Fund,

Currently: research scientist at the University of Western Australia

### 6) **Stephen Levas** (PhD 2012)

Dissertation: Biochemistry and Physiology of Bleached and Recovering Hawaiian and Caribbean Corals

Awards: National Science Foundation East Asia and Pacific Summer Institutes Program Fellow, Ford Foundation Minority Scholarship Fellow, Minorities Striving and Pursuing Higher Degrees

of Success in Earth System Science Scholar

Currently: Assistant Professor, University of Wisconsin – Whitewater

# 7) **Branwen Williams** (PhD 2009)

Dissertation: Biogeochemistry of Alcyonacean and Antipatharian Corals in the Western Pacific Warm Pool

Awards: National Science and Engineers of Canada Graduate Fellow

Currently: Associate Professor (tenured) at Claremont McKenna College

# 8) **Ryan P. Moyer** (PhD, 2008)

Dissertation: Carbon Isotopes and Trace Elements in Small Mountainous Rivers and Coastal Coral Skeletons in Puerto Rico.

Awards: Ohio State University Presidential Fellow, USGS Mendenhall Postdoctoral Fellow, St. Petersburg, FL

Currently: Associate Research Scientist at Florida Fish & Wildlife Conservation Commission

### 9) Kathryn A. Matthews (PhD, 2007)

Dissertation: Cadmium in Coral Skeleton: Natural Variability and In Situ Calibration.

Positions: Postdoctoral fellow at the Los Alamos National Laboratory, NM (2007-9),

Congressional Postdoctoral Fellow, Washington, DC (2009-2010)

Currently: Program Officer at Oceanea

# 10) **Lisa J. Rodriguez** (PhD, 2005)

Dissertation: Physiology and Biogeochemistry of Bleached and Recovering Corals from Hawaii

Positions: Postdoctoral Fellow, Department of Biology, Villanova University (2005-2008)

Currently: Associate Professor (tenured), Villanova University

### MS students:

### 1) **Scott Kelsev** (M.S. 2016)

Thesis: Impact of land use on headwater stream organic and inorganic carbon export in a temperate Midwestern experimental watershed

Currently: laboratory technician at Wright State University

### 2) **Justin Bauman** (M.S. 2013)

Thesis: The Effects of Elevated Temperature Stress on the Acquisition and Allocation of Carbon to Lipids in Hawaiian Corals

Currently: PhD student at University of North Carolina – Chapel Hill

# 3) **Abbey E. Chrystal** (M.S. 2008)

Thesis: Exploring Linear Extension and Stable Isotopes ( $\delta^{18}O$ ,  $\delta^{13}C$ ) as Proxies for Coral Bleaching in Porites lobata.

# 4) **Ruth Adler** (M.S. 2008)

Thesis: The first Late Quaternary sediment record from the western Arctic Ocean with a true millennial resolution: HOTRAX core HLY0503-08JPC, Mendeleev Ridge

Awards: National Science Foundation GK-12 Graduate Fellow

Currently: Pdjunct professor at Case Western University

# 5) Henry Chun-Yi Wu (MES, 2004)

Thesis: Stable Isotope Records from Western Pacific Corals

Current: Research Scientist at the University of Paris Laboratoire D'Oceanographie et du Climat

# Undergraduates (senior thesis)

# 1) Claire Juracka (BS SENR, in progress)

Thesis: Effect of bleaching and ocean acidification on coral pigmentation in Montipora capitata corals.

# 2) **Hailey Hayes** (BS SENR, in progress)

Thesis: Natural variability in the contribution of heterotrophic carbon to tissues of Pocillopora corals

# 3) **Elton Nguyen** (BS Biology, in progress)

Thesis: Development of an in vitro culture technique of Tridacna dersasa clams

Awards: OSU Academic Enrichment Grant

# 4) Andrea Wertz (BS Microbiology, in progress)

Thesis: Effect of bleaching and ocean acidification on coral pigmentation in Porites compressa corals.

# 5) Alexandra Smith (BS Earth Science, in progress)

Thesis: Natural variability in the contribution of heterotrophic carbon to tissues of Hawaiian corals

Awards: SURE scholar, Office of Energy and Environment Undergrad Research Grant, Kathryn Sullivan Scholarship, Denman UG Research Poster winner, OSU-ASC Kathryn Sullivan Scholarship Award, Meyer's Undergrad Summer Fellowship, Undergrad Research Scholar, Ohio EPA Scholarship

### 6) **Sarah Solomon** (BS EEOB, in progress)

Thesis: *Lipid class composition of annually bleached Caribbean corals*Awards: Grottoli Undergrad Hoover Foundation Internship, ASC Undergrad Research Scholar, Undergraduate Research Scholar, National Sigma Xi, Student research blog https://ugresearchtheohiostateuniversity.wordpress.com/2018/01/18/climate-change-sarah-solomon/, Denman UG Research Poster winner, Honors and Scholars Center grant

### 7) **Margaret Otto** (BEng, in progress)

Thesis: Modeling pH and temperature manipulations in situ

Awards: STEP scholar, Grottoli Undergrad Hoover Foundation Internship

### 8) **John Armstrong** (BS EEOB, 2018)

Thesis: Carbon budgets of bleached Hawaiian corals recovering under ocean acidification conditions

# 9) **Chloe Criswell** (BEng, 2018)

Thesis: Dissipation of acidified water on a coral reef

# 10) **Katherine Giesy** (BS Zoology, 2017, research distinction)

Thesis: Effect of pH and temperature on carbon budgets of the Hawaiian corals Porites lobata

# 11) **Alec Moore** (BS EEOB, minor SES, 2017, research distinction)

Thesis: Variability in Hawaiian coral across naturally occurring gradients in temperature,  $pCO_2$ , and flow.

Awards: SURE Scholar, URO Mayers Summer Research Scholar, Grottoli Undergrad Hoover Foundation Internship, Ohio EPA Scholarship, OSU Sigma Xi, Arts and Sciences Undergraduate Research Scholarship, winner of the Denmen Undergraduate Research Forum (3<sup>rd</sup> place) and the Natural & Mathematical Sciences Undergrad Research Forum

# 12) Annce Kadri (BS Environmental Science, 2016)

Thesis: Recovery of coral biomass following bleaching under ocean acidification conditions Awards: OSU Research Scholars Award, SURE scholar

Currently: dental school

### 13) Casey Saup (BS Earth Science, 2015)

Thesis: Physiological and isotopic responses of Stylophora pistillata to future coastal ocean conditions

Awards: NMS Undergraduate Research winner, -Denman Undergraduate Research honorable mention, SURE scholar

### 14) Micheal McBride (BS Biology, 2014)

Thesis: *Effect of Repeat Bleaching Stress on the Stable Isotopes of Porites astreoides Corals* Currently: Ohio University Heritage College of Osteopathic Medicine

### 15) **Tyler Liston** (BS Earth Science, 2014)

Thesis: Interactive Effects of Temperature, Nutrients, and Ocean Acidification on Coral Biomass Awards: NMS Undergraduate Research Forum winner

# 16) Colin Gearing (BS Earth Science, 2013)

Thesis: Particulate organic fluxes in Acropora millepora and Turbinaria reniformis at elevated temperature and pCO<sub>2</sub>

# 17) Sarah Starkey (BS Geology, 2012)

Thesis: Sources of carbon to the skeleton of the mesophotic coral Leptoseris hawaiiensis Awards: SURE scholar

### 18) Maximillian Ringwald (BS Geology, 2012)

Thesis: Denaturing Gradient Gel Electrophoresis Analysis of Microbial Community Variation in Bleached and Non-bleached Montastraea faveolata

Awards: SURE Scholar

### 19) **Dana Borg** (Gava) (BS Geology, Honors, 2011)

Thesis: Paleoceanography of sclerosponges from elemental signatures

Awards: SURE Scholar, ASLO undergraduate research poster winner

# 20) Justin Baumann (BS Zoology/ BA Geology, 2011)

Thesis: The effects of single and repeat bleaching on photosynthesis, respiration, and feeding in three species of Caribbean coral

Awards: SURE Scholar, NMS Undergraduate Research Forum winner

# 21) **Teresa Huey** (Sanders) (BS SENR, 2011)

Thesis: Effect of Land Use on the Age and Isotopic Composition of Dissolved and Particulate Carbon in Headwater Streams

Awards: SURE Scholar

# 22) **Chris Paver** (BS Earth Science, 2007)

Thesis: Temporal and Spatial Natural Variability of the  $\delta^{13}C$  of Dissolved Inorganic Carbon in

Seawater

### 23) James E. Palardy (BA Biology, 2004)

Thesis: The Effect of Morphology, Polyp Size, Depth and Temperature on Feeding in Three Species of Panamanian Corals. Published as Palardy et al. (2005)

Currently: program officer at the Pew Charitable Trust

### 24) **Lillian Bloch** (BA 2004)

Thesis: Developing a Method for Black Carbon Extraction from Coral and Application to an Australian Coral Core.

# 25) Christopher Malachowski (BA 2004)

Thesis: Effects of River Discharge on Coral Reefs in Puerto Rico and the Relationship to Land Use/Land Cover.

### **Postdocs**

# 1) **Stephen Levas** (2012-2013)

Project: *Effect of ocean acidification and warming on corals* (NSF-funded project of Grottoli) Currently: Assistant Professor University of Wisconsin – Whitewater

### 2) Yasuaki Tanaka (2012-2013)

Project: The allocation of nitrate-derived N to the zooxanthellae, host tissue, and carbonate skeleton of Montipora digitata and Porites cylindrica, and subsequent changes in the  $\delta^{13}C$  of each fraction.

Awards: Japan Society Research Fellowships for Young Scientist Currently: Assistant Professor at University Brunei Darussalam

# 3) **Branwen Williams** (2009)

Project: Paleoceanography of the Pacific Warm Pool

Currently: Associate Professor (tenured) at Clarement McKenna College

# 4) **Adam D. Hughes** (2006-2008)

Project: Acquisition, Allocation, and Utilization of Carbon in Bleached and Recovering Corals (NSF-funded project, Grottoli lead PI)

Currently: Research Scientist, The Scottish Association for Marine Science Dunstaffnage Marine Laboratory

### Visiting Scientist

1) Marji Puotinen (2012 - 2013), University of Wollagong

Project: Effect of hurricane-produced cool wakes on coral reefs

### **Faculty Mentees**

- 1) **Elizabeth Griffith**, Assistant Professor in SES (2017 present)
- 2) Audrey Sawyer, Assistant Professor in SES (2014 present)
- 3) **Michael Wilkins**, Assistant Professor in SES (2013 2018)

# STUDENT COMMITTEE MEMBER (in addition to Major students above):

- 1) Nia Simone Walker (PhD in progess, Stanford University, Hopkins Marine Lab)
- 2) **Samantha Carter** (PhD candidate, Ohio State University)
- 3) Amber Bellamy (PhD 2016, Ohio State University) Contributions of allochthonous and aged

- organic matter to the diet and nutrition of macroinvertebrates
- 4) **Donaldi Permana** (PhD 2015, Ohio State University) Reconstructing History of Temperature and Net Accumulation based on Papua Ice-Cores and Its Implication on Climate Variability over Indonesia
- 5) **Alvaro Fernandez** (PhD 2015, Tulane University) *Isotopic proxies of continental and oceanic climate* (currently postdoc in Switzerland)
- 6) **Karl Philippoff** (MS 2014, Ohio State University) *A climate history recovered from the Zangser Glacier, west-central Tibetan Plateau.*
- 7) **Jesse Filburn** (PhD 2013, Ohio State University) *An ecological approach to feed management in fish rearing ponds.*
- 8) **Deborah Leslie** (PhD student 2011-2012, Ohio State University) *Applying Stable Isotopes*,  $\delta^{11}B$ ,  $\delta^{18}O$ , and  $\delta D$ , in Geochemical and Hydrological Investigations
- 9) **Kathryn Lang** (BS 2012 senior thesis, Ohio State University) *Hypoxia as a mediator of food web interactions and energy flow in reservoir ecosystems.*
- 10) **Donaldi Permana** (MS 2011, Ohio State University) Reconstructing History of Temperature and Net Accumulation based on Papua Ice-Cores and Its Implication on Climate Variability over Indonesia
- 11) **Annette Trierweiler** (MS 2010, Ohio State University) *Interaction of Landslides and Land Use Changes on Fluvial Carbon Transport*
- 12) **Henry Wu** (PhD 2010 at SUNY-Albany) *Assessing replicated coral trace element (Sr/Ca and Mg/Ca) variability and skeletal growth records from the tropical Pacific*
- 13) **Natalie Kehrwald** (PhD 2009, Ohio State University) *Low-latitude ice cores and freshwater availability*.
- 14) **Seth Young** (PhD 2007, Ohio State University) *A chemostratigraphic investigation of the late Ordovician greenhouse to icehouse transition: oceanographic, climatic, and tectonic implications.*
- 15) **Suzanna Richter** (PhD 2006, University of Pennsylvania) *Continental-Scale Patterns in Wood Cellulose*  $\delta^{18}O$ : *Implications for Paleoclimate Reconstruction*

# **WORK-STUDY, INTERNSHIP, and VOLUNTEER STUDENTS:**

- 1) Carlos Juarez (1999 2000)
- 2) James Palardy (2001 2004)
- 3) Lillian Bloch (2002 2003)
- 4) Lauren Tang (2002 2003)
- 5) Shayna Higa (2002 2003)
- 6) Leigh Seeleman (2003 2004)
- 7) Emily Young (2003)
- 8) Christopher Malachowski (2003 2004)
- 9) Haley Wolfgruber (2004)
- 10) Lindsey Swiacki (2004 2005)
- 11) Chris Paver (2005 2007)
- 12) Patrick Bills (2007)
- 13) Rachel Michelli (2007)
- 14) Zachary Rosenbloom (2007)
- 15) Christine Andrews (2007)
- 16) Louis Boucher (2007)
- 17) Frances Lugo (2007-2008)

- 18) Scott Himes (2007 2008)
- 19) Brad Hull (2007 2008)
- 20) Pat Burns (2007-2008)
- 21) Lei-Wei Hung (2008-2009)
- 22) Julie Ditkof (2009)
- 23) Jane Marino (2009-2010)
- 24) Lindy Rauchenstein (2009-2010)
- 25) Shaun Bartels (2010)
- 26) Teresa Huey (2008 2011)
- 27) Justin Bauman (2009- 2011)
- 28) Mikelis Berzins (2011)
- 29) Mohammed Munster (2011)
- 30) Mark Ferrito (2010 2011)
- 31) Maximillian Ringwald (2011 2012)
- 32) Chrissy Zerda (2011 2012)
- 33) Alexander Singer (high school intern) (2011 2012)
- 34) Jordan Scheuerman (SURE 2012)

- 35) Elizabeth Zebrowski (2011 2012)
- 36) Megan Shortridge (2012 2013)
- 37) Michael McBride (2012 2014)
- 38) Samantha Blackhurst (2012 2014)
- 39) Tyler Liston (2013 2014)
- 40) Colin Gearing (2013 2014)
- 41) Megan Dudte (2014)
- 42) Spencer Palombit (2014)
- 43) Malloree Hagerty (2014 2015)
- 44) Casey Saup (2013 2015)
- 45) Annce Kadri (2014 2016)
- 46) Maddie Rokosh (2015)
- 47) Andrew Huber (2016)
- 48) Katiri Snyder (2015 2016)
- 49) Alec Moore (2015 2017)
- 50) Emily Sambuco (2015 2017)
- 51) Mathias Wagner (2016 2017)
- 52) Francesca Hawkes (2017)
- 53) Lydia Mullins (2017)

- 54) Chloe Criswell (2016 2018)
- 55) John Armstrong (2016 2018)
- 56) Katherine Giesy (2016 2018)
- 57) Jordan Walters (STEP 2017 2018)
- 58) Colin Mortemore (STEP 2017 2018)
- 59) Jackie Altschuler (STEP 2017 2018)
- 60) Margaret Otto (STEP 2016 present)
- 61) Sarah Solomon (2015 present)
- 62) Alex Smith (SURE 2017 present)
- 63) Andrea Wertz (2017 present)
- 64) Hailey Hayes (2017 present)
- 65) Adrianna Arribas (STEP 2018 present)
- 66) Kristen Rockwell (2018 present)
- 67) Claire Juracka (Honors 2018 present)
- 68) Emma Kline (2018 present)
- 69) Ester Kang (2018 present)
- 70) Monica Locatis (STEP 2018 present)
- 71) Elton Nguyen (2018 present)

### TOTAL NUMBER OF STUDENTS ADVISED:

**Graduate Student PhD Dissertation Major Advisor:** 10

**Graduate Student Masters Major Advisor: 5** 

Graduate Student Committee Member (not as Major Advisor): 14

**Total graduate students advised: 28** 

Total undergraduate senior thesis students advised: 22

Total undergraduate work-study, interns, and volunteers: 71

**Total Postdocs advised: 4**