

Claudia R. Benitez-Nelson

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EDUCATION:

Ph.D. Marine Chemistry and Geochemistry, Massachusetts Institute of Technology/Woods Hole
Oceanographic Institution Joint Program, February 1999
B.S. Physical Chemistry, University of Washington, 1987 - 1992
B.S. Chemical Oceanography, University of Washington, 1987 - 1992

RESEARCH INTERESTS:

My research primarily focuses on understanding the mechanisms that govern particle formation, composition, and flux from land to sea and from the surface ocean to the seafloor. Related to this broad theme is an emphasis on understanding the biogeochemistry of carbon and nutrients, especially phosphorus, under changing ocean conditions. My research is primarily field-based and encompasses both blue-water, coastal, and inland regimes.

PROFESSIONAL EXPERIENCE:

2019 – present	<i>Endowed Chair in Marine Studies, USC</i>
2019 – present	<i>Carolina Distinguished Professor, USC</i>
2022 – 2026	<i>Senior Associate Dean for College Initiatives and Interdisciplinary Programs, USC</i>
2017 – 2022	<i>Associate Dean for Instruction, Community Engagement, & Research, USC</i>
2012 – 2018	<i>College of Arts & Sciences Distinguished Professor in Marine Science, USC</i>
2010 – present	<i>Professor, School of the Earth, Ocean & Environment, USC</i>
2010 – 2013	<i>Director, Marine Science Program, USC</i>
2005 – 2008	<i>Undergraduate Director, Marine Science Program, USC</i>
2006 – 2010	<i>Associate Professor with tenure, Department of Geology, USC</i>
2002 – 2006	<i>Assistant Professor, Department of Geology, University of South Carolina</i>
2002 – 2005	<i>Affiliate Graduate Faculty, Department of Oceanography, University of Hawaii</i>
1999 – 2001	<i>Full Graduate Faculty, Department of Oceanography, University of Hawaii</i>
1998 – 2001	<i>SOEST Young Investigator, University of Hawaii</i>
1998 – 2000	<i>NOAA/UCAR Postdoctoral Fellow in Climate and Global Change, University of Hawaii</i>

HONORS AND AWARDS:

2024	<i>Outstanding Educator Award, Association for Women Geoscientists</i>
2024	<i>Fellow, The Oceanography Society.</i>
2021	<i>The Oceanography Society Mentoring Award, For Excellence and/or Innovation in Mentoring the Next Generation of Ocean Scientists</i>
2019	<i>Marine Chemistry & Geochemistry H. Burr Steinbach Scholar, MIT/WHOI Joint Program</i>
2017 - 2018	<i>SEC Academic Leadership Development Program Fellow</i>
2017	<i>Sustaining Fellow, Association for the Sciences of Limnology & Oceanography</i>
2016	<i>SEC Faculty Achievement Award (1 each year from USC)</i>
2016	<i>Ada B. Thomas Outstanding Faculty Advisor of the Year Award, USC</i>
2015	<i>American Association for the Advancement of Science (AAAS) Fellow</i>
2015	<i>Dennis and Jean Wiesenburg Distinguished Lecturer in Ocean Science, University of Southern Mississippi</i>
2014	<i>Sulzman Award for Excellence in Education and Mentoring, Biogeosciences Section. American Geophysical Union</i>
2013	<i>USC Distinguished Professor of the Year (USC's highest undergraduate teaching honor). Only 1 awarded each year,</i>
2012	<i>College of Arts & Sciences Distinguished Professor, USC</i>
2012, 2015	<i>Mortar Board Excellence in Teaching Award, USC</i>
2012	<i>National Academies of Science/Humboldt Foundation Kavli Fellow</i>
2011	<i>MEL Distinguished Visiting Fellow, Xiamen, China.</i>
2010	<i>Selected as one of USC's Rising Stars (14 selected each year)</i>
2008 – 2009	<i>Marie Curie International Incoming Fellow (Spain)</i>
2008	<i>U.S. Fulbright Scholar (Spain)</i>
2007	<i>Freshman Advocate Award Finalist Honoree, USC</i>
2006	<i>Ocean Sciences Early Career Award, American Geophysical Union</i>
2006	<i>Doctoral Hooding and Commencement Ceremony Speaker, USC</i>
2005	<i>Faculty of the Year, National Award from the National Society of Collegiate Scholars (for outstanding undergraduate mentoring and leadership)</i>
2005	<i>USC Mungo Undergraduate Teaching Award (5 awarded each year)</i>
2004	<i>Nominee USC Mungo Graduate Teaching Award</i>
2002	<i>S. Carolina Alliance for Minority Participation (SCAMP) Outstanding Mentor</i>
1998 – 2001	<i>SOEST Young Investigator, University of Hawaii</i>
1998 – 2000	<i>NOAA/UCAR Postdoctoral Fellow in Climate and Global Change</i>
1996 – 1998	<i>Environmental Protection Agency STAR Graduate Fellowship</i>
1993 – 1996	<i>Office of Naval Research Graduate Fellowship.</i>
1991	<i>Woods Hole Oceanographic Institution Summer Student Fellow</i>

SELECTED GRANTS RECEIVED:

- ARPA-E, Quantification of atmospheric carbon dioxide removal using an autonomous ocean sensor that measures sinking particulate carbon flux, DOE, Co-PI Benitez-Nelson. 5/1/2024 – 12/31/2026. \$867,208 (CBN portion)
- Center for Clean Water, USC Research Institute. Co-PI Benitez-Nelson 6/1/2023 -5/31/2027, \$400,000
- Collaborative Research: Three decades of foraminiferal assemblages in the Santa Barbara Basin provide a link between present and past climates. NSF PI: Benitez-Nelson 7/15/2022-8/14/2025. \$280,509
- Collaborative Research: Foraminiferal Ecological Response to Ocean Conditions in the Northwest Pacific Ocean. NSF PI: Benitez-Nelson 5/15/2020-5/14/2023. \$377,418

- Collaborative Research: US GEOTRACES GP17-OCE and GP17-ANT: Export and remineralization rates of bioactive and particle reactive trace elements using thorium-234 NSF PI: Benitez-Nelson 6/1/2021 – 5/31/2024, \$140,467.
- Louis Stokes Alliances for Minority Participation (LSAMP) Bridge to Doctorate: University of South Carolina-Columbia LS SCAMP, NSF. Co-PIs: Matthews and Benitez-Nelson, 8/15/2019 – 11/14/2022, \$1,075,000.
- Collaborative Research: Assessing the relative importance of small vs large particles as sources of nutrition to abyssal communities, NSF, PI: Drazen, Co-PIs: Benitez-Nelson, Popp, and Smith, 1/1/2018 – 12/31/2021 \$264,691 (CBN Portion).
- Elucidating Spatial and Temporal Variability in the Export and Attenuation of Ocean Primary Production using Thorium-234, NASA, PI: Buesseler, Co-PIs: Benitez-Nelson and Resplandy, 9/1/2018 – 1/30/2022 \$172,654 (CBN Portion).
- Determining sediment rates in storm water ponds to improve life cycle cost assessments associated with maintenance dredging. SC Sea Grant, PI: Smith, Co-PI: Benitez-Nelson, 3/1/2016 – 2/28/2018. \$123,799
- GEO-Scholar: Broadening undergraduate participation in the geosciences. NSF, PI: Benitez-Nelson, 7/01/2015-6/30/2022, \$599,383.
- Collaborative Research: Isotopic insights to mercury in marine food webs and how it varies with ocean biogeochemistry, NSF PI: Popp, Co-PIs: Benitez-Nelson and others, 8/1/2014-7/31/2017, \$362,164 (CBN portion).
- Collaborative Research: The Cariaco Basin Oceanographic Time Series Program. NSF, PI: R. Thunell, co-PI: C.R. Benitez-Nelson, 3/1/2014 – 2/28/2017, \$800,000.
- ICESCAPES 2011-2014. NASA, 2/23/2011-2/22/2014, PI: Benitez-Nelson, \$224,598.
- Collaborative Research: Chemical and Biological Characterizations of Phosphonate and Polyphosphate Dynamics in Marine Phytoplankton. NSF, PI: Benitez-Nelson, Co-PIs: Dyhrman and Ingall, 5/1/11-4/31/2014, \$811,997.
- Persistence and fate of domoic acid in the Santa Barbara Basin. NSF, PI: Benitez-Nelson, 1/01/2009-12/31/2011, \$499,383.
- Spatial and temporal variability in chlorophyll, primary production and export production in the Southern Ocean. NASA ROSES, PI: Mitchell, co-PI: Benitez-Nelson, 1/01/09 - 12/31/11, \$170,000 (CBN Portion)
- Collaborative Research: Nitrogen Fixation and its Coupling with Denitrification in the Eastern Tropical North Pacific. NSF, PI: Prahl, Co-PIs: Popp and Benitez-Nelson 10/1/07–9/30/10, \$257,612 (CBN Portion).
- ScienceQuest: A South Carolina Geoscience Initiative. NSF, PI: Benitez-Nelson, Co-PI: Owens, 3/1/06–2/28/10, \$153,641.
- Collaborative Research: Examining redox-sensitive phosphorus speciation and remineralization using X-ray and NMR spectroscopic methods. NSF. PI: Brandes, Co-PI: Ingall and Benitez-Nelson, 9/1/05 – 8/31/08, \$241,661. (CBN Portion)
- Influences of Cyclonic Eddy Activity on Planktonic Food Web Dynamics and Carbon Export in the Lee of Hawaii. NSF. PI: Benitez-Nelson, Co-PIs: Bidigare, Dickey, Leonard, Landry, 9/1/04 – 6/30/07, \$1,425,000.
- Future applications of ²³⁴Th in aquatic ecosystems. NSF. PI: Benitez-Nelson, 4/1/04-12/31/06, \$78,520.
- Phosphorus speciation in Cariaco Basin using chemical separation and ³¹P NMR, USC. PI: Benitez-Nelson 4/1/03-6/30/04, \$13,000.
- Radioisotopic Measurements to Determine Plankton Nutrient Sources and Carbon Export at Station ALOHA. NSF. PI: Benitez-Nelson 9/1/99 – 8/30/03, \$219,999.
- Elucidation of Atmospheric Nitrogen and Phosphorus Deposition Rates and Pathways to the Hawaiian Islands. Andrew W. Mellon Foundation, PI: Huebert, Co-PIs Blomquist and Benitez-Nelson. 1/1/00 – 12/31/02, \$600,000.

PUBLICATIONS (* Denotes graduate student or postdoc as author, **Denotes my undergraduate student as author) H-Index Web of Science: 49, Google Scholar:59, <https://orcid.org/0000-0002-1004-5048>; <https://scholar.google.com/citations?user=nEuGaD4AAAAAJ&hl=en>

- Clevenger, SJ, Ceballos-Romero, E, **Benitez-Nelson, CR**, Roca-Martí, M, Buesseler, KO (2025). Investigating multiple timescales of carbon and silica fluxes during the North Atlantic spring bloom: A joint ^{234}Th - ^{238}U and ^{210}Po - ^{210}Pb study as part of the EXPORTS program, *Marine Chemistry*, submitted.
- Yanuskiewicz, EA, Wojtal, PW, Shea, CH, **Benitez-Nelson, CR**, Estapa, M, Roca-Marti, M, Popp, BN, Close, HG (2026). Organic indicators for the alteration of exported phytodetritus during the North Atlantic spring bloom, Part I: Nitrogen isotopic patterns of amino acids, L&O, revised.
- Paul, NL, Durkin, CA, Sudek, S, Bressac, M, Boyd, PW, Tappa, E, **Benítez-Nelson, CR**, Santoro, AE (2026) Sediment trap preservative choice impacts particle-associated microbial community composition, L&O Methods, <https://aslopubs.onlinelibrary.wiley.com/doi/10.1002/lom3.70026>
- Sandoval-Belmar, M, Kessouri, F, Smith, J, Moreno, AR, Anderson, C, Kudela, KM, Sutula, M, Ho, M, Damien, P, **Benitez-Nelson, CR**, McWilliams, J, Edwards, C, Bianchi, D (2026). Anthropogenic inputs enhance domoic acid production by Pseudo-nitzschia in the Southern California Bight, *Harmful Algae*, 151.1032023. <https://doi.org/10.1016/j.hal.2025.103023>
- Collins, JR, Cape, MR, Boenish, RE, **Benitez-Nelson, CR**, Doney, SC, Fujita, R, Gaines, SD, Gruby, RL, Jin, D, Kim, HH, Kleisner, KM, Mariani, G., Moore, LA, Pershing, A, Rader, DN, Roman, J, Saba, G, Sanchiro, J, Saul, S, Savoca, N, Walter, A (2025) The biogeochemistry of natural climate solutions based on fish, fisheries, and marine mammals: A review of current evidence, research needs, and critical assessment of readiness, *Global Biogeochemical Cycles*, 39(7), <https://doi.org/10.1029/2024GB008393>
- Havard, E., Cherry, K, **Benitez-Nelson, CR**, Tappa, E, Davis, CV (2025) Decreasing foraminiferal flux in response to ongoing climate change in the Santa Barbara Basin, California, *Biogeosciences*, 22, 4035–4060, <https://bg.copernicus.org/articles/22/4035/2025/>.
- Stephens, BM, Roca-Martí, M, Maas, AE, Amaral, VJ, Clevenger, S, Traylor, S, **Benitez-Nelson, CR**, Boyd, PW, Buesseler, KO, Carlson, CC, Cassar, N, Estapa, M, Fassbender, AJ, Huang, Y, Lam, PJ, Marchal O, Menden-Deuer, S, Paul, NL, Santoro, AE, Siegel, DA, Nicholson, DP (2025) An upper mesopelagic zone carbon budget for the subarctic North Pacific, *Biogeosciences*, 22(13), 3301-3328, <https://doi.org/10.5194/bg-22-3301-2025>.
- Miller, EC, Close, HG, Grabb, K, Huffard, CL, **Benitez-Nelson, CR**, Karl, CM, Smith, CR, Smith, KL., DeLong, E, Li, F., Drazen, JC, Popp, BN (2025) Transformations of particulate organic matter from the surface to the abyssal plain in the Northeast Pacific as inferred from compound-specific stable isotope analysis and microbial community barcoding, *Deep-Sea Research*, Deep Sea Research Part I: Oceanographic Research Papers, 225, 104597, <https://doi.org/10.1016/j.dsr.2025.104597>.
- *Hopper, G, Smith, E, Dormoy-Boulanger, J, **Benitez-Nelson, CR** (2025) Urbanization impacts dissolved organic matter concentration and quality in a Southeastern United States watershed. *Environmental Science & Technology-Water*, 5, 1281-1296. <https://pubs.acs.org/doi/full/10.1021/acsestwater.4c01054>.
- *Umhau, B, Motta, LC, Blum, Close, HG, Drazen, JC, Popp, BN, **Benitez-Nelson, CR**, (2024) Particulate Mercury Export in the Central Pacific Ocean Using ^{234}Th - ^{238}U Disequilibria, *Marine Chemistry*, 265-266, 104433. <https://doi.org/10.1016/j.marchem.2024.104433>.
- Moore, WS, **Benitez-Nelson, CR**, Schutte, C, Moody, A, Shiller, A, Sibert, RJ, Joye, SJ (2024) SGD-OD: Investigating the Potential Oxygen Demand of Submarine Groundwater Discharge in Coastal Systems, *Scientific Reports* 14, 9249 (2024). <https://doi.org/10.1038/s41598-024-59229-7>

- Abdalla, A, Van Wyk, A, **Benitez-Nelson, CR**, Hill, T (2024) Soil organic carbon and nitrogen reduction through cattle-path induced erosion in montane grasslands, KwaZulu-Natal, South Africa, *Catena*, Catena, 236, 107741, <https://doi.org/10.1016/j.catena.2023.107741>
- Clevenger, SJ, **Benitez-Nelson, CR**, Roca-Martí, M, Bam, W, Estapa, M, Kenyon, J, Pike, S, Resplandy, L, Wyatt, A, Buesseler, K. (2023) Carbon and silica fluxes during a declining North Atlantic spring bloom as part of the EXPORTS program. *Marine Chemistry*, 258, 104346, <https://doi.org/10.1016/j.marchem.2023.104346>
- **Benitez-Nelson, CR**, McNeal, KS, Jones, WJ (2023) Improving Retention of Underrepresented Groups in the Geosciences through an Intensive First-Year Experience at the University of South Carolina *Oceanography Magazine*, 36(4), <https://doi.org/10.5670/oceanog.2024.108>
- Graff, JR, Nelson, NB Roca-Martí, M, Romanelli, E, Kramer, SJ, Erickson, Z, Cetinić, I, Buesseler, KO, Passow, U, Zhang, X, **Benitez-Nelson, CR**, Bisson, K, Close, HG, Crockford, T, Fox, J, Halewood, S, Lam, P, Roesler, C, Sweet, J, VerWey, B, Xiong, Y, Siegel, DA (2023) Reconciliation of total particulate organic carbon and nitrogen measurements determined using contrasting methods in the North Pacific Ocean as part of the NASA EXPORTS field campaign *Elementa: Science of Anthropocene*, 11 (1): 00112, <https://doi.org/10.1525/elementa.2022.00112>
- Wojtal, PK, Doherty, SC Shea, HC, Popp, BN, **Benitez-Nelson, CR**, Buesseler, KO, Estapa, ML, Roca-Martí, M, Close, HC (2023) Deconvolving Mechanisms of Particle Flux Attenuation using Nitrogen Isotope Analyses of Amino Acids, *Limnology and Oceanography Letters*, <https://doi.org/10.1002/lno.12398>
- *Szewczyk, CJ, Smith, E, **Benitez-Nelson, CR** (2023) Temperature sensitivity of oxygen demand varies as a function of organic matter source, *Frontiers in Marine Science*, 10 <https://doi.org/10.3389/fmars.2023.1133336>
- Motta, LC, Blum, JD, Popp, BN, Umhau, BP, **Benitez-Nelson, CR**, Close, HG, Washburn, SJ, Drazen, HC (2022). Mercury Isotopic Evidence for the Importance of Particles as a Source of Mercury to Marine Organisms, *PNAS*, 19 (44) e2208183119, <https://doi.org/10.1073/pnas.2208183119>.
- Moore, WS, Frankle, JD, **Benitez-Nelson, CR**, Früh-Green, G, Lang, SQ (2021) Activities of ²²³Ra and ²²⁶Ra in fluids from the Lost City Hydrothermal Field require short fluid residence times, *Journal of Geophysical Research-Oceans*, 126, e2021JC017886. <https://doi.org/10.1029/2021JC017886>.
- Clevenger, SJ, **Benitez-Nelson, CR**, Drysdale, J, Pike, S, Puigcorbe, V, Buesseler, KO (2021) Review of the analysis of ²³⁴Th in small volume (2 - 4 L) seawater samples: improvements and recommendations, *Journal of Radioanalytical and Nuclear Chemistry*, 329:1–13, <https://doi.org/10.1007/s10967-021-07772-2>
- Zhou, K, **Benitez-Nelson, CR**, Huang, J, Xiu, P, Sun, Z, Dai, M (2021) Cyclonic eddies modulate temporal and spatial decoupling of particulate carbon, nitrogen, and biogenic silica export in the North Pacific Subtropical Gyre, *Limnology and Oceanography Letters*, <https://doi.org/10.1002/lno.11895>.
- Siegel, DA et al. (2021) An Operational Overview of the EXport Processes in the Ocean from RemoTe Sensing (EXPORTS) Northeast Pacific Field Deployment. *Elementa: Science of Anthropocene*, 9 (1): 00107. <https://doi.org/10.1525/elementa.2020.00107>.
- Roca-Martí, M, **Benitez-Nelson, CR**, Umhau, P, Wyatt, AM, Clevenger, SJ, Pike, S, Horner, TJ, Estapa, ML, Resplandy, Buesseler, KO (2021) Concentrations, ratios, and sinking fluxes of major bioelements at Ocean Station Papa. *Elementa: Science of Anthropocene*, 9: 1. DOI: <https://doi.org/10.1525/elementa.2020.00166>
- Estapa, M., Buesseler, K, Durkin, CA, Omand, M, **Benitez-Nelson, CR**, Roca-Martí, M, Breves, E, Kelly, RP, Pike, S (2021) Biogenic sinking particle fluxes at Ocean Station Papa. *Elementa: Science of Anthropocene* 9(1): <https://doi.org/10.1525/elementa.2020.00122>.

- *McCabe, K, Smith, E, Lang, S, Osburn, C, **Benitez-Nelson, C** (2021) Particulate and dissolved organic matter in storm water runoff influences oxygen demand in urbanized headwater catchments, *Environmental Science and Technology*, <https://doi.org/10.1021/acs.est.0c04502>.
- Buesseler, KO, **Benitez-Nelson, CR**, Roca-Marti, M, Wyatt, AM, Laure Resplandy, L, Clevenger, SJ, Drysdale, JA., Estapa, ML, Pike, S, Umhau, BP (2020) High resolution spatial and temporal measurements of particulate organic carbon flux using thorium-234 in the NE Pacific Ocean during the EXPORTS Program, *Elementa: Science of the Anthropocene*, 8 (1): 030. <https://doi.org/10.1525/elementa.030>
- Zhou, K., Dai, M., Xiu, P., Wang, L., Hu, J., **Benitez-Nelson, CR** (2020) Transient enhancement and decoupling of carbon and opal export in cyclonic eddies, *Journal of Geophysical Research-Oceans*, *Journal of Geophysical Research: Oceans*, 125, e2020JC016372. <https://doi.org/10.1029/2020JC016372> .
- *Davis, CV, Livsey, CM, Palmer, HM, Hull, PM, Thomas, E, Hill, TM, **Benitez-Nelson, CR** (2020) Extensive morphological variability in asexually produced planktic foraminifera. *Science Advances*, 6, eabb8930. <https://advances.sciencemag.org/content/6/28/eabb8930>.
- Romero, S, Ka'apu-Lyons, C, Umhau, Blaire; **Benitez-Nelson, CR**, Close, H, Hannides, C, Drazen, J, Popp, B (2020) Deep zooplankton rely on small particles in response to low particle fluxes, *Limnology and Oceanography Letters*, 5, 410-416. <https://doi.org/10.1002/lol2.10163>
- *Sarno, CT, **Benitez-Nelson, CR**, Ziolkowski, LA, Hendy, IL, *Davis, CV, Tappa, EJ, Thunell, RC (2020) The Impacts of Flood, Drought, and Turbidites on Organic Carbon Burial over the Past 2,000 years in the Santa Barbara Basin, California, *Paleoceanography and Paleoclimatology*, 35, e2020PA003849. <https://doi.org/10.1029/2020PA003849>
- *Davis, CV, **Benitez-Nelson CR** (2020) Evidence for rapid trace element alteration of planktic foraminiferal shells from the Panama Basin: Manganese adsorption during vertical transport. *Marine Micropaleontology*, 157, 101872 <https://doi.org/10.1016/j.marmicro.2020.101872>.
- *Bell, DW, Pellechia, P, Ingall, E.D., **Benitez-Nelson, CR** (2020) Resolving marine dissolved organic phosphorus (DOP) composition in a coastal estuary, North Inlet, South Carolina. *Limnology and Oceanography*, 65(11), 27872-2799. <https://doi.org/10.1002/lno.11552>
- *Davis, CV, Fehrenbacher, J., **Benitez-Nelson, CR**, Thunell, R.C. (2020) Trace Element Heterogeneity across Individual Planktic Foraminifera from the Modern Cariaco Basin. *Journal of Foraminiferal Research*, (2020) 50 (2): 204–218. <https://doi.org/10.2113/gsjfr.50.2.204>
- Hannides, CC, Popp, BN, Close, HG, **Benitez-Nelson, CR**, Ka'apu-Lyons, C.A., Gloecker, K., Wallsgrove, N., Umahu, B., Drazen, J. (2020) Seasonal dynamics of midwater zooplankton and relation to particle cycling in the North Pacific Subtropical Gyre. *Progress in Oceanography*, 102266, <https://doi.org/10.1016/j.pocean.2020.102266>.
- Humphries, MS, **Benitez-Nelson, CR**, Bizimis, M, Ralph, TJ, Larkin, ZT, McCarthy, TS (2020) Dust provenance and its role as a potential fertilising agent for the Okavango Delta, Botswana. *Earth Surface Processes and Landforms*, <https://doi.org/10.1002/esp.4840>.
- Arias-Ortiz, A, Masque, P, Glass, Benson, L, Kennedy, H, Duarte, CM, Garcia-Orellana, J, **Benitez-Nelson, CR**, Humphries, MS, Rafeefinjanahary, I, Ravelonjatovo, J Lovelock, CE (2020) Losses of soil organic carbon with deforestation in mangroves of Madagascar. *Ecosystems*, <https://doi.org/10.1007/s10021-020-00500-z>.
- **Davis, AN, *Davis, CV, Thunell, RC, Osborne, EB, Black, DE, **Benitez-Nelson, CR** (2019) Reconstructing 800 years of Carbonate Ion Concentration in the Cariaco Basin Using the Area-Density of Planktonic Foraminifera Shells, *Paleoceanography*, <https://doi.org/10.1029/2019PA003698>.

- Osborne, EO, Thunell, RC, Gruber, N, Feely, RF, **Benitez-Nelson, CR** (2019) Climatic Modulation of Anthropogenic Ocean Acidification in the California Current, *Nature Geoscience*, 13, 43–49 (2020) <https://www.nature.com/articles/s41561-019-0499-z>.
- *Umhau, B, Motta, LC, **Benitez-Nelson, CR**, Close, HG, Hannides, CC, Popp, BN, Blum, JD, Drazen, J, Grabb, KC (2019) Seasonal and spatial changes in carbon and nitrogen fluxes estimated using ^{234}Th : ^{238}U disequilibria in the North Pacific Subtropical Gyre, *Marine Chemistry*, 217, 103705. <https://doi.org/10.1016/j.marchem.2019.103705>.
- *Davis, CV, Ontiveros-Cuadras, JF, **Benitez-Nelson, CR**, Schmittner, A, Tappa, EJ, Osborne, EO, Thunell, RC (2019) Ongoing increase in Eastern Tropical North Pacific denitrification as interpreted through the Santa Barbara Basin sedimentary $\delta^{15}\text{N}$ record. *Paleoceanography*, 34: 1554-1567. <https://doi.org/10.1029/2019PA003578>.
- Lorenzoni, L, Thunell, RC, **Benitez-Nelson, CR**, Montes, E, Varela, R, Astor, Y, and Muller-Karger, F. (2019) From land to the ocean: the interplay between allochthonous and autochthonous contribution to particles in nepheloid layers of the Cariaco Basin, Venezuela, *Journal of Geophysical Research – Biogeoscience*, 124. <https://doi.org/10.1029/2019JG005288>.
- Motta, LC, Blum, JD, Johnson, MW, Umhau, B, Popp, P, Washburn, SJ, Drazen, J, **Benitez-Nelson, CR**, Hannides, C.C., Close, H.G., Lamborg, CH (2019) Mercury cycling in the North Pacific Subtropical Gyre as revealed by mercury stable isotope ratios. *Global Biogeochemical Cycles*, 33, 777– 794. <https://doi.org/10.1029/2018GB006057>.
- Ontiveros-Cuadrada, JF, Thunell, R., Ruiz-Fernández, AC, **Benitez-Nelson, CR**, Machain-Castillo, MA, Tappa, E, Sanchez-Cabeza, JA (2019) Centennial OMZ changes in the NW Mexican Margin from geochemical and foraminiferal sedimentary records, *Continental Shelf Research*, 176 (2019) 64–75. <https://doi.org/10.1016/j.csr.2019.02.009>.
- Moore, WS, Humphries, MS, **Benitez-Nelson, CR**, Pillay, L, Higgs, C (2019) Transport of solutes through beaches: Insights and limitations from radium isotope studies *Journal of Geophysical Research – Oceans*, <https://doi.org/10.1029/2018JC014772>
- *Shi, X, **Benitez-Nelson, CR**, Cai, P, He, L, Moore, WS (2019) Development of a two-layer transport model in layered muddy - permeable marsh sediments using $^{224}\text{Ra}/^{228}\text{Th}$ disequilibrium, *Limnology and Oceanography*, <https://doi.org/10.1002/lno.11143>.
- Muller-Karger, F, Astor, Y, **Benitez-Nelson, CR**, Buck, K, Fanning, K, Lorenzoni, L, Montes, E, Scranton, M, Rueda-Roa, D, Taylor, G, Thunell, R, Tappa, E, Vaerla, R (2019) Scientific Legacy of the CARIACO Oceanographic Time-Series Program. *Annual Reviews in Marine Science*, 11, <https://doi.org/10.1146/annurev-marine-010318-095150>.
- *Umhau, B, **Benitez-Nelson, CR**, Anderson, C, McCabe, K, Burrell, C (2018) A time series of water column distributions and sinking particle flux of *Pseudo-nitzschia* and domoic acid in the Santa Barbara Basin, California. *Toxins*, Nov 17;10(11). pii: E480. <https://doi.org/10.3390/toxins10110480>.
- *Bell, DW, Denham, S., Smith, EM, **Benitez-Nelson, CR** (2018) Temporal variability in ecological stoichiometry and material exchange in a tidally-dominated estuary (North Inlet, South Carolina) and the impact on community nutrient status. *Estuaries and Coasts* <https://doi.org/10.1007/s12237-018-0430-7>.
- *Schroer, WF, **Benitez-Nelson, CR**, Smith, EM, Ziolkowski, LA (2018) Drivers of sediment accumulation and nutrient burial in coastal stormwater detention ponds, South Carolina, USA, *Ecosystems*, <https://doi.org/10.1007/s10021-017-0207-z>.
- **Benitez-Nelson CR** et al. (2018) Radioactivity in the Marine Environment: Radioecology, *Limnology and Oceanography e-Lectures.*, 2018;8:170–228. <https://doi.org/10.3390/toxins10110480>.
- **Benitez-Nelson, CR** et al. (2018) Radioactivity in the Marine Environment: Cosmogenic and Anthropogenic Radionuclides, *Limnology and Oceanography e-Lectures.* 2018;8:114–169. <https://doi.org/10.1002/loe2.10008>.

- **Benitez-Nelson, CR** et al. (2018) Radioactivity in the Marine Environment: Uranium-Thorium Decay Series. *Limnology and Oceanography e-Lectures*. 2018;8:59–113. <https://doi.org/10.1002/loe2.10009>.
- **Benitez-Nelson, CR** et al. (2018) Radioactivity in the Marine Environment: Understanding the Basics of Marine Radioactivity, *Limnology and Oceanography e-Lectures*. 2018;8:1–58. <https://doi.org/10.1002/loe2.10010>.
- Humphries, M., **Benitez-Nelson, CR**, Bizimis, M., Finch, JM (2017) An aeolian sediment reconstruction of regional wind intensity and links to larger scale climate variability since the last deglaciation from the east coast of southern Africa, *Global and Planetary Change*, 156, 59-67. <https://doi.org/10.1016/j.gloplacha.2017.08.002>
- *Bell, DW, Pellechia, P, Chambers, LR, Longo, AF, McCabe, KM, Ingall, ED, **Benitez-Nelson, CR** (2017) Isolation and molecular characterization of dissolved organic 1 phosphorus using electro dialysis-reverse osmosis and solution 31P-NMR. *Limnology & Oceanography Methods*, <https://doi.org/10.1002/lom3.10171>.
- *Puigcorb , V, Roca-Mart , M, Masqu , P, **Benitez-Nelson, CR**, Rutgers van der Loeff, Bracher, Moreau, S. (2017) Latitudinal distributions of particulate carbon export across the North Western Atlantic Ocean. *Deep-Sea Research I*, 129, 116-130, <https://doi.org/10.1016/j.dsr.2017.08.016>.
- Buesseler, KO, Dai, M, Aoyama, M, **Benitez-Nelson, CR**, Charmasson, S, Higley, K, Maderich, V, Masque, P, Morris, PJ, Oughton, D, Smith, J. (2017) Fukushima Daiichi-derived radionuclides in the Ocean: transport, fate, and impacts, *Annual Reviews of Marine Science*, 9, <https://doi.org/10.1146/annurev-marine-010816-060733>.
- Schnetzer, A, Lampe, R, **Benitez-Nelson, CR**, Marchetti, A, Osburn, C, Tatters, A (2017) Marine snow formation by the toxin producing diatom, *Pseudo-nitzschia australis*, *Harmful Algae*, 61, 23–30, <https://doi.org/10.1016/j.hal.2016.11.008>
- Chambers, LR, Ingall, ED, Saad, EM, Longo, AF, Takeuchi, M, Tang, T, **Benitez-Nelson, CR**, Haley, SH, Dyhrman, ST, Brandes, J, Stubbins, A (2016) Enhanced Dissolved Organic Matter Recovery from Saltwater Samples with Coupled Electro dialysis and Solid Phase Extraction, *Aquatic Geochemistry*, <https://doi.org/10.1007/s10498-016-9306-2>.
- Osborne, E, Thunell, R, Marshall, BJ, Holm, JA, Tappa, EJ, **Benitez-Nelson, CR**, Cai, WJ, and Chen, B (2016) Calcification of the planktonic foraminifera *Globigerina bulloides* and carbonate ion concentration: Results from the Santa Barbara Basin. *Paleoceanography*, 31, <https://doi.org/10.1002/2016PA002933>.
- *Piper, M, **Benitez-Nelson, CR**, Frey, K, Mills, MM, Pal, S (2016) Dissolved and Particulate Phosphorus Distributions and Elemental Stoichiometry throughout the Chukchi Sea, *Deep-Sea Research II*, 130, 76-87, <https://doi.org/10.1016/j.dsr2.2016.05.009>.
- Saad, E, Longo, AF, Chambers, LR, Huang, R, **Benitez-Nelson, CR**, Dyhrman, ST, Diaz, JM, Ingall, ED, Tang, Y. (2016) Understanding marine dissolved organic matter production: Compositional insights from axenic cultures of *Thalassiosira pseudonana*, *Limnology & Oceanography*, <https://doi.org/10.1002/lno.10367>.
- Siegel, D, Buesseler, K, Behrenfeld, M, **Benitez-Nelson, CR**, Boss, E, Brzezinski, M, Burd, A, Carlson, C, D’Asaro, E, Doney, S, Perry, MJ, Stanley, R, Steinberg, D (2016) Prediction of the Export and Fate of Global Ocean Net Primary Production: The EXPORTS Science Plan, *Frontiers in Marine Science*, <https://doi.org/10.3389/fmars.2016.00022>.
- *Puigcorb , V, Roca-Mart , M, Masqu , P, **Benitez-Nelson, CR**, Rutgers van der Loeff, M, Laglera, LM, Bracher, A, Cheah, W, Strass, V, Hoppem, M, Santos-Echeand a, J, Klaas, C (2016) Particulate organic carbon export across the Antarctic Circumpolar Current at 10 E: Differences north and south of the Antarctic Polar Front. *Deep-Sea Research II*, doi: <https://doi.org/10.1016/j.dsr2.2016.05.016>.
- Stukel, MR, Kahru, M, **Benitez-Nelson, CR**, D cima, M, Goericke, R, Landry, MLR, Ohman, M (2015) Using Lagrangian-based process studies to test satellite algorithms of

vertical carbon flux in the eastern North Pacific Ocean. *Journal of Geophysical Research-Oceans*, 120, <https://doi.org/10.1002/2015JC011264>.

- Stukel, MR, **Benitez-Nelson, CR**, Decima, M., Taylor, AG, Buchwald, C, Landry, MR (2015) The biological pump in the Costa Rica Dome: An open ocean upwelling system with high new production and low export. *Journal of Plankton Research*, first published online November 30, 2015 <https://doi.org/10.1093/plankt/fbv097>.
- Reidhaar, PE, Lane, CS, **Benitez-Nelson, CR**, Gamble, DW (2015) Spatial and Temporal Variations in Pyrodinium bahamense Cyst Concentrations in the Sediments of Bioluminescent Mangrove Lagoon, St. Croix, U.S.V.I. *Estuaries and Coasts*, DOI <https://doi.org/10.1007/s12237-015-0032-6>.
- *Puigcorb , V, **Benitez-Nelson, CR**, Masqu , P, Verdeny, E, White, AE, Popp, BN, Prahl, FG, Lam, PJ (2015) Small particles drive summertime carbon and nutrient export in the Gulf of California and Eastern Tropical North Pacific. *Global Biogeochemical Cycles*, 29, 1309–1332, <https://doi.org/10.1002/2015GB005134>.
- **Benitez-Nelson, CR** (2015) Ocean chemistry. The missing link in oceanic phosphorus cycling? *Science*, 348, 759-760. <https://doi.org/10.1126/science.aab2801>.
- Mills, MM, Brown, ZW, Lowry, KE, van Dijken, GL, Becker, S, Pal, S, **Benitez-Nelson, CR**, Downer, MM, Strong, AL, Swift, JH, Pickart, RS (2015) Impacts of low phytoplankton NO₃:PO₄³⁻ utilization ratios over the Chukchi Shelf, Arctic Ocean, *Deep-Sea Research II*, 118, Part A, 105–121, <https://doi.org/10.1016/j.dsr2.2015.02.007>.
- **McParland, E, **Benitez-Nelson, CR**, Taylor, GT, Rollings, A, and Lorenzoni, L (2015) Cycling of suspended particulate phosphorus in the redoxcline of the Cariaco Basin. *Marine Chemistry*, 176, 64–74, <https://doi.org/10.1016/j.marchem.2015.07.008>.
- Pinckney, JL, **Benitez-Nelson, CR**, Thunell, RC, Muller-Karger, F, Troccoli, L, and Varela, R (2015) Changes in phytoplankton community structure in the Cariaco Basin from 1995 to 2011 in response to changes in physical forcing. *Deep-Sea Research*, 101, 27-37. <https://doi.org/10.1016/j.dsr.2015.03.004>.
- Arrigo, KR, and 22 authors (including **Benitez-Nelson, CR**) (2014) Phytoplankton blooms beneath the sea ice in the Chukchi sea. *Deep-Sea research II*, 105, 1-16, <https://doi.org/10.1016/j.dsr2.2014.03.018>.
- Bograd, SJ, Pozo Buil, M, Di Lorenzo, E, Castro, CG, Schroeder, ID, Goericke, R, Anderson, CA, **Benitez-Nelson, CR** and Whitney, FA (2014) Changes in Source Waters to the Southern California Bight, *Deep-Sea Research II*, <https://doi.org/10.1016/j.dsr2.2014.04.009>.
- *Madden, L, Bedward, JC, Wiebe, EN, **Benitez-Nelson, CR** (2014) Lessons Learned in Summer Camp: A Case Study of the Learning Paths of Three Campers. *Electronic Journal of Science Education*, 16(3).
- Bellinger, B, Van Mooy, BAS, Cotner, JB, Fredricks, HF, **Benitez-Nelson, CR**, Thompson, J, Cotter, A, Knuth, M, Godwin, C (2014) Physiological modifications by seston in response to physicochemical gradients within Lake Superior, *Limnology and Oceanography*, 59(3), 1011-1026 | DOI: 10.4319/lo.2014.59.3.1011.
- Longo, AF, Ingall, ED, Diaz, JM, Oakes, M., King, LE, Mihalopoulos, K, Violaki, K, Avila, A., Nenes, A, **Benitez-Nelson, CR**, Brandes, J, McNulty, I, Vine, DJ (2014) European Aerosols Deliver Substantial Phosphorus to the Mediterranean Sea, *Geophysical Research Letters*, 41(11), 4043–4049, DOI: 10.1002/2014GL060555.
- Scranton, MI, Taylor, GT, **Benitez-Nelson, CR**, Muller-Karger, FM, Fanning, K, Lorenzoni, L, Montes, E, Varela, R, Astor, Y (2014) Interannual and subdecadal variability in the nutrient geochemistry of the Cariaco Basin, *Oceanography Magazine*, 27(1):148–159, <http://dx.doi.org/10.5670/oceanog.2014.18>.
- Lorenzoni, L., Taylor, G.T., Thunell, R.C., **Benitez-Nelson, CR**, Hansell, D.A., Montes, E., Masserini, R., Fanning, K., Variela, R Astor, Y., Guzman, L., and Muller-Karger, F.M. (2013) Spatial and seasonal variability in dissolved organic matter in the Cariaco Basin,

Venezuela. *Journal of Geophysical Research: Biogeosciences*, 118, 1–12, doi:10.1002/jgrg.20075.

- Rigaud, S, Puigcorb , V, Camara-Mor, P, Casacuberta, N, Roca-Mart , M, Garcia-Orellana, J, **Benitez-Nelson, CR**, Masque, P, Church, T. (2013) An assessment of the methods, calculation and uncertainties in the determination of ^{210}Po and ^{210}Pb activities in seawater, *Limnology and Oceanography Methods*, 11:561-571, DOI: 10.4319/lom.2013.11.561.
- Stukel, M, Ohman, MD, **Benitez-Nelson, CR**, Landry, M (2013) Contributions of mesozooplankton to vertical carbon export in a coastal upwelling system. *Marine Ecology Progress Series*, 491:47-65, doi:10.3354/meps10453.
- Humphries, MA, **Benitez-Nelson, CR** (2013). Recent trends in sediment and nutrient accumulation rates in coastal, freshwater Lake Sibaya, South Africa, *Marine and Freshwater Research*, <http://dx.doi.org/10.1071/MF12313>.
- Montes, E, Altabet, M, Muller-Karger, F, Scranton MI, Thunell R, **Benitez-Nelson, CR**, Lorenzoni L, Astor, Y (2013) Biogenic nitrogen gas production at the oxic-anoxic interface in the Cariaco Basin, Venezuela, *Biogeosciences*, 10, 267–279, 2013.
- White, A, Foster, RA, **Benitez-Nelson, CR**, Masque, P, Verdeny, E, Popp, Arthur, KE, Prahl, FG (2013) Nitrogen Fixation in the Gulf of California and the Eastern Tropical North Pacific. *Progress in Oceanography*, 109, 1-17. <http://dx.doi.org/10.1016/j.pocean.2012.09.002>.
- Maiti, K., Buesseler, K.O., Pike, S.M, **Benitez-Nelson, C.R.**, Cai, P, Chen, W., Cochran, K., Dai, M., Dehairs, F., Gasser, B., Kelly, R.P., Masque, P., Miller, L., Miquel, J.C., Moran, S.B., Morris, P.J., Peine, F., Planchon, F, Renfro, A.A., Rutgers van der Loeff, M., Santschi, P., Turnewitsch, R., Waples, J.T., Xu, C. (2012) Intercalibration studies of short lived Thorium-234 in the water column and marine particles. *Limnology and Oceanography Methods*, 10, 631-644, DOI: 10.4319/lom.2012.10.631.
- Kanakidou, M., Duce, R., Prospero, J., Baker, A.R., **Benitez-Nelson, C.R.**, Dentener, F.J., Hunter, K.A., Kubilay, N., Liss, P.S., Mahowald, N., Okin, G., Sarin, M. Surapipith, V., Tegen, I., Tsigaridis, K., Uematsu, M., van Aardenne, J., Zamora, L.M., Zhu, Y. (2012) Atmospheric Organic Material and the Nutrients Nitrogen and Phosphorus it Carries to the Ocean, *Global Biogeochemical Cycles*, 26, GB3026, doi:10.1029/2011GB004277.
- Arrigo, KR, and 31 authors (including **C.R. Benitez-Nelson**) (2012) Massive phytoplankton blooms under Arctic sea ice. *Science*, DOI: 10.1126/science.1215065
- Dyhrman, S.T., B.D. Jenkins, T.A. Ryneerson, M.A. Saito, M. L. Mercier, H. Alexander, L. P. Whitney, A. Drzewianowski, V. V. Bulygin, E. M. Bertrand, Z. Wu, **C.R. Benitez-Nelson**, A. Heithoff (2012) The transcriptome and proteome of the diatom *Thalassiosira pseudonana* reveal a diverse phosphorus stress response, *PLoS ONE*, 7(3), e33768.
- Diaz, J.M., E.D. Ingall, S.D. Snow, **C.R. Benitez-Nelson**, M. Taillefert, J.A. Brandes (2012) Inorganic polyphosphate cycling as a mechanism for the enhanced regeneration of phosphorus in the hypoxic water column of Effingham Inlet, British Columbia, *Global Biogeochemical Cycles*, 26, GB2040, doi:10.1029/2011GB004226.
- Lorenzoni, L., **Benitez-Nelson, C.R.**, Thunell, R.C, Hollander, D., Varela, R., Astor, Y., Audemard, F., Muller-Karger, F.M. (2012) Potential role of event-driven sediment transport on sediment accumulation in the Cariaco Basin, Venezuela. *Marine Geology*, 307-310, 105–110
- Stukel, M., M. Landry, M.D. Ohman, R. Goericke, T. Samo, **C.R. Benitez-Nelson** (2012) Do inverse ecosystem models accurately reconstruct plankton food web flows? A comparison of two solution methods using field data from the California Current Ecosystem. *Journal of Marine Systems*, 91, 20-33.
- *Izquierdo, **Benitez-Nelson, C.R.**, Masqu , P., R., Castillo, S., Alastuey A., Avila, A. (2012) Atmospheric phosphorus deposition to the northwest Mediterranean: Wet and dry deposition modes and the potential role of African events in marine biological production. *Atmospheric Environment*, 49, 361-370.

- Bargu, S., M. W. Silver, M. D. Ohman, **C.R. Benitez-Nelson**, D.L. Garrison (2012) The mystery behind Hitchcock's film "The Birds". *Nature Geoscience*, 5, 2-3.
- *Sekula-Wood, E., **Benitez-Nelson, C.R.**, **Bennett, M.A., Thunell, R.C. (2012) Magnitude and composition of sinking particulate phosphorus fluxes in Santa Barbara Basin, California. *Global Biogeochemical Cycles*, 26, GB2023, doi:10.1029/2011GB004180.
- *Sekula-Wood, E. **Benitez-Nelson C.R.** Morton, S. Anderson C.R. and Thunell R.C. (2011) *Pseudo-nitzschia* and domoic acid fluxes in Santa Barbara Basin (CA) from 1993 to 2008. *Harmful Algae*, 10, 567-575, doi:10.1016/j.hal.2011.04.009.
- 60. Stukel, M., M. Landry, **C.R. Benitez-Nelson**, R. Goericke (2011) Trophic Cycling and Carbon Export in the California Current Ecosystem. *Limnology & Oceanography*, 56(5), 1866-1878.
- *Lyons, G., **Benitez-Nelson, C.R.**, and Thunell, R.C. (2011) Phosphorus composition of sinking particles in the Guaymas Basin, Gulf of California, *Limnology & Oceanography*, 56, 1093-1105.
- *Anderson, C.R., Kudela, R.M., **Benitez-Nelson, C.R.**, Sekula-Wood, E., Burrell, C., Langlois, G., Siegel, D. (2011) Detecting toxic diatom blooms from ocean color and a regional ocean model. *Geophysical Research Letters*, 38, L04603, doi:10.1029/2010GL045858.
- Silver M.W., Bargu, S., Coale, S.L., **Benitez-Nelson C.R.**, Garcia A.C., Roberts K.J., Sekula-wood, E., Bruland K.W., Coale K.H. (2010) Toxic diatoms and domoic acid in natural and iron enriched waters of the oceanic Pacific, *Proceedings of the National Academy of Sciences*, 107(47) doi: **10.1073/pnas.1006968107**.
- *Maiti, K., **C. R. Benitez-Nelson**, K.O Buesseler (2010) Insights into particle formation and remineralization using the short-lived radionuclide, Thorium-234. *Geophysical Research letters*, 37, L15608, doi:10.1029/2010GL044063, 2010
- Fire, S.E., Wang, Z., Berman, M., Langlois, G.W., Morton, S.L., Sekula-Wood, E., **Benitez-Nelson, C.R.** (2010) Trophic transfer of the harmful algal toxin domoic acid as a cause of death in a minke whale (*Balaenoptera acutorostrata*) stranding in Southern California. *Aquatic Mammals* 2010, 36(4), 342-350, DOI 10.1578/AM.36.4.2010.342
- Orchard, E.D., **Benitez-Nelson, C.R.**, Pellechia, P.J., Lomas, M.W., Dyhrman, S.T. (2010) Polyphosphate in *Trichodesmium* from the low phosphorus Sargasso Sea. *Limnology & Oceanography*, 55:2161-2169.
- Muller-Karger, F. E., R. Varela, R. C. Thunell, M. I. Scranton, G. T. Taylor, Y. Astor, **C. R. Benitez-Nelson**, L. Lorenzoni, E. Tappa, M. A. Goñi, and C. Hu (2010) The CARIACO Oceanographic Time Series. In: *Carbon and Nutrient Fluxes in Continental Margins: A Global Synthesis*, Editors: K.-K. Liu, L. Atkinson, R. Quinones, and L. Talaue-McManus, Springer-Verlag, New York, pp. 454-463.
- Humphries, M., A. Kindness, W. N Ellery, J. C. Hughes, and **C. R Benitez-Nelson** (2010). Accumulation rate of clastic and chemical sedimentation and their role in the long-term development of the Mkuze River floodplain, South Africa, *Geomorphology*, 119, 88–96.
- *Maiti, K., J.L. Carroll and **C.R. Benitez-Nelson** (2010) Sedimentation and Particle Dynamics in the Marginal Ice Zone of the Barents Sea, *Journal of Marine Systems*, 79, 185-198 10.1016/j.jmarsys.2009.09.001.
- Dyhrman, S.T., **C. R. Benitez-Nelson**, E.O. Orchard, S.T. Haley P.J. Pellechia (2009). A microbial source of phosphonates in oligotrophic marine systems, *Nature Geoscience*, DOI: 10.1038/NCEO639.
- Lorenzoni, L, R. C. Thunell, **C.R. Benitez-Nelson**, D. Hollander, N. Martinez, E. Tappa, R. Varela, Y. Astor, F. E. Muller-Karger (2009) The importance of subsurface nepheloid layers in transport and delivery of sediments to the Eastern Cariaco Basin, Venezuela, *Deep-Sea Research I*, 56, 2249-2262.

- Ranhofer, M. L., E. Lawrenz, J.L. Pinckney, **C.R. Benitez-Nelson** and T. L. Richardson (2009) Cell-Specific Alkaline Phosphatase Expression by Phytoplankton from Winyah Bay, South Carolina, USA., *Estuaries*, DOI 10.1007/s12237-009-9180-x.
- Taylor, G.T., R. C. Thunell, R. Varela, **C. R. Benitez-Nelson**, M. I. Scranton (2009) Hydrolytic ectoenzyme activity associated with suspended and sinking organic particles within the anoxic Cariaco Basin. *Deep-Sea Research I*, 56, 1266-1283.
- *Maiti, K., **C.R. Benitez-Nelson**, M.W. Lomas., J.W. Krause (2009) New and Export Production in the Subtropical Open Ocean Before Seasonal Stratification. III. Comparison of Export Production by ²³⁴Th and Sediment Traps, *Deep-Sea Research I*, 56, 875-891.
- *Sekula-Wood, E, A. Schnetzer, **C.R. Benitez-Nelson**, C. Anderson , W. Berelson , M. Brzezinski , J. Burns , D. Caron , I. Cetinic , J. Ferry, E. Fitzpatrick, B. Jones, P. Miller, S. Morton , R. Schaffner, D. Siegel , and R. Thunell (2009) Rapid downward transport of the neurotoxin domoic acid in coastal waters, *Nature Geoscience*, 22 March 2009 | DOI: 10.1038/NGEO472.
- Mahowald, N.M., T. D. Jickells, A.R. Baker, P. Artaxo, **C.R. Benitez-Nelson**, G. Bergametti, T. C. Bond, Y. Chen, D. D. Cohen, B. Herut, N. Kubilay, R. Losno, C. Luo, W. Maenhaut, K.A. McGee, G. S. Okin, R. L. Siefert, S. Tsukuda (2009) Global distribution of atmospheric phosphorus sources, concentrations and deposition rates, and anthropogenic impacts, *Global Biogeochemical Cycles*, 22, GB4026, doi:10.1029/2008GB003240.
- Mahowald, N. M. , S. Engelstaedter, C. Luo , Andrea Sealy, P. Artaxo, **C.R. Benitez-Nelson**, S. Bonnet, Y. Chen, Patrick Y. Chuang, D.D. Cohen, F. Dulac, B. Herut, A. M. Johansen, N. Kubilay, R. Losno, W. Maenhaut, A. Paytan, J.M. Prospero, L.M. Shank, and R.L. Siefert (2009) Atmospheric iron deposition: Global distribution, variability, and human perturbations, *Annual Reviews of Marine Sciences*, 1, 245-278 doi:10.1146/annurev.marine.010908.163727
- Hannides, C.C.S., M. R. Landry, **C. R. Benitez-Nelson**, R. M. Styles, J. P. Montoya: D. M. Karl (2009) Export stoichiometry and migrant-mediated flux of phosphorus in the North Pacific Subtropical Gyre, *Deep-Sea Research I*, 56, 73–88.
- Thunell, R.C., **C. R. Benitez-Nelson**, F. E. Muller-Karger, L. Lorenzoni, K Fanning, M. Scranton, R. Varela, Y. Astor (2008) The Si cycle in the Cariaco Basin, Venezuela: Seasonal Variability in Silicate Availability and the Si:C:N Composition of Sinking Particles. *Global Biogeochemical Cycles*, 22, GB4001, doi:10.1029/2007GB003096.
- **Benitez-Nelson: C.R.**, D. J. McGillicuddy (2008) Mesoscale Physical-Biological-Biogeochemical Linkages in the Open Ocean: An Introduction to the results of the E-Flux and EDDIES Programs (Preface). *Deep-Sea Research II*, 55, 1133-1138.
- Chen, F-Z, W-J Cai, Y. Wang, Y. Rii, R. R. Bidigare, and **C.R. Benitez-Nelson** (2008) Biogeochemical cycling of the carbon dioxide system and net community production estimation in a cold-core cyclonic eddy in the lee of Hawaii, *Deep-Sea Research II*, 55, 1412-1425.
- *Maiti, K., **C. R. Benitez-Nelson**, Y. Rii, and R. Bidigare (2008) The influence of a mature cyclonic eddy on particle export. *Deep-Sea Research II*, 55, 1445-1460
- Noble, A.E., M. A. Saito, K. Maiti, and C. R. Benitez-Nelson (2008) Cobalt, manganese, and iron near the Hawaiian Islands: A concentrating mechanism for cobalt within a cyclonic eddy and implications for the hybrid-type trace metals. *Deep-Sea Research II*, 55, 1473-1490.
- Mahaffey, C., **C. R. Benitez-Nelson**, R. R. Bidigare, and D. Karl (2008) Nitrogen dynamics within wind-driven eddies. *Deep-Sea Research II*, 55, 1398-1411.
- *Verdeny, E., P. Masqué, K. Maiti, J. Garcia-Orellana, J. M. Bruach, and **C. R. Benitez-Nelson** (2008) Particle Export within cyclonic Hawaiian lee eddies derived from ²¹⁰Pb-²¹⁰Po disequilibria. *Deep-Sea Research II*, 55, 1461-1472.
- Diaz, J, E. Ingall, **C. R. Benitez-Nelson**, D. Paterson, M. de Jonge, J. A. Brandes (2008) Marine Polyphosphate: A Key Player in Geologic Phosphorus Sequestration. *Science*, 320, 652-655.

- **Benitez-Nelson, C. R.** et al. (+ 23 authors) (2007) Mesoscale eddies drive increased silica export in the subtropical Pacific Ocean. *Science*, 312, 1017-1021.
- Chen, F-Z, W-J Cai, **C.R. Benitez-Nelson**, and Y. Wang (2007) Sea surface $p\text{CO}_2$ -SST relationships across a cold-core cyclonic eddy: Implications for understanding regional variability and air-sea gas exchange, *Geophysical Research Letters*, 34, doi:10.1029/2006GL028058.
- Thunell, R.C., **C. R. Benitez-Nelson**, R. Varela, Y. Astor and F. E. Muller-Karger (2007) Particulate Organic Carbon Fluxes Along Upwelling-Dominated Continental Margins: Rates and Mechanisms. *Global Biogeochemical Cycles*, 21, GB1022 doi:10.1029/2006GB002793.
- **Benitez-Nelson, C. R.**, L. O. Madden, R. M. Styles, R. C. Thunell, and Y. Astor (2007) Inorganic and organic sinking particulate phosphorus fluxes across the oxic/anoxic water column of Cariaco Basin, Venezuela, *Marine Chemistry*, 105, 90-100.
- **Benitez-Nelson, C. R.** and Willard S. Moore (2006) Future applications of ^{234}Th in aquatic ecosystems (Editorial). *Marine Chemistry*, **100**, 163-165.
- Waples, J., **C. R. Benitez-Nelson**, N. Savoye, M. Rutgers van der Loeff, M. Baskaran and Ö. Gustafsson (2006) An Introduction to the Application and Future Use of ^{234}Th in Aquatic Systems. *Marine Chemistry*, **100**, 166-189.
- Savoye, N., **C. R. Benitez-Nelson**, A. B. Burd, J. K. Cochran, M. Charette, K. O. Buesseler, G. Jackson, M. Roy-Barman, S. Schmidt and M. Elskens (2006) ^{234}Th sorption and export models in the water column: a review. *Marine Chemistry*, **100**, 234-249.
- Buesseler, K. O., **C. R. Benitez-Nelson**, S. B. Moran, A. Burd, M. Charette, J. K. Cochran, L. Coppola, N. S. Fisher, S. W. Fowler, W. D. Gardner, L. D. Guo, O. Gustafsson, C. Lamborg, P. Masque, J. C. Miquel, U. Passow, P. H. Santschi, N. Savoye, G. Stewart, and T. Trull (2006) An assessment of particulate organic carbon to thorium-234 ratios in the ocean and their impact on the application of ^{234}Th as a POC flux proxy. *Marine Chemistry*, **100**, 213-233.
- Santschi, P.H. J.W. Murray, M. Baskaran, **C.R. Benitez-Nelson**, L. Guo, C-C. Hung, C. Lamborg, S. B. Moran, U. Passow, and M. Roy-Barman (2006) Thorium speciation in seawater. *Marine Chemistry*, **100**, 250-268.
- Rutgers van der Loeff, M., M. M. Sarin, M. Baskaran, **C. R. Benitez-Nelson**, K. Buesseler, M. Charette, M. Dai, Ö. Gustafsson, P. Masque, P. Morris, K. Orlandini, A. Rodriguez y Baena, N. Savoye, S. Schmidt, R. Turnewitsch, I. Vöge, and J. Waples (2006) A review of present techniques and methodological advances in analyzing ^{234}Th in aquatic systems. *Marine Chemistry*, **100**, 190-212.
- Cade-Menun, B., **C. R. Benitez-Nelson**, P. Pellechia and A. Paytan (2005) Refining phosphorus-31 nuclear magnetic resonance spectroscopy for marine sediment trap samples: storage conditions and extraction recovery. *Marine Chemistry*, **97**, 293-306.
- *O'Neill, L.O., **C. R. Benitez-Nelson**, R. M. Styles, E. Tappa, and R. C. Thunell (2005) Diagenetic effects on particulate phosphorus samples collected using formalin poisoned sediment traps. *Limnology and Oceanography Methods*, **3**, 308-317.
- **Benitez-Nelson, C. R.** and Th-group (2004) Future Applications of ^{234}Th in Aquatic Ecosystems (FATE). *EOS, Transactions, American Geophysical Union*, Vol. 85, No. 45, 471.
- Smoak, D., **C. R. Benitez-Nelson**, W. S. Moore, R. C. Thunell, Y. Astor and F. Muller-Karger (2004) Radionuclide fluxes and particle scavenging in Cariaco Basin. *Continental Shelf Research*, 24, 1451-1463.
- **Benitez-Nelson, C. R.**, L. P. O'Neill, L. Kolowith, P. Pellechia, and R. C. Thunell (2004) Phosphonates and particulate organic phosphorus cycling in an anoxic marine basin. *Limnology and Oceanography*, 49(5), 1593-1604.
- **Benitez-Nelson, C. R.** and M. A. Charette (2004) Comment: Uncertainty versus Variability in Upper Ocean Carbon Flux Estimates. *Limnology and Oceanography*, 49(4), 1218-1220.

- Bidigare, R. R., **C. R. Benitez-Nelson**, C. L. Leonard, M. P. Seki, M. L. Parsons, R. D. Vaillancourt, J. Marra and P. Quay (2003) Influence of a cyclonic eddy on photosynthesis, microheterotroph abundance and carbon export in the lee of Hawaii. *Geophys. Res. Lett.* (COVER), **30**, 10.1029/2002GL016393.
- **Benitez-Nelson, C. R.**, S. M. Vink, J. Heath, B. Huebert (2003) Volcanically influenced iron and aluminum cloud water deposition to Hawaii. *Atm. Environment*, **37**, 535-544.
- Sansone, F. J., **C. R. Benitez-Nelson**, E. H. DeCarlo, J. A. Resing, S. M. Vink, J. A. Heath, B. J. Huebert (2002) Geochemistry of Atmospheric Aerosols Generated from Lava-Seawater Interactions. *Geophys. Res. Lett.*, **29**, 10.1029/2001GL013882.
- **Benitez-Nelson, C. R.** and D. M. Karl (2002) Phosphorus cycling in the North Pacific Subtropical Gyre using cosmogenic ^{32}P and ^{33}P . *Limnol. and Ocean.*, **47**, 762-770.
- **Benitez-Nelson, C. R.**, K. O. Buesseler, D. M. Karl, J. E. Andrews (2001) A time-series study of particulate matter export in the North Pacific Subtropical Gyre based on ^{234}Th : ^{238}U disequilibrium. *Deep-Sea Res. I*, **48**, 2595-2611.
- **Benitez-Nelson, C. R.**, K. O. Buesseler, M. Rutgers van der Loeff, J. E. Andrews, L. Ball, G. Crossin, and M. A. Charette (2001) Testing a new small volume technique for determining ^{234}Th in seawater. *J. Radioanal. and Nuc. Chem.*, **248**, 795-799.
- Dai, M. H. and **C. R. Benitez-Nelson** (2001) Colloidal Organic Carbon and ^{234}Th in the Gulf of Maine. *Mar. Chem.*, **74**, 181-196.
- Buesseler, K. O., **C. R. Benitez-Nelson**, M. Rutgers van der Loeff, J. E. Andrews, L. Ball, G. Crossin, and M. A. Charette (2001) A comparison of methods with a new small-volume technique for thorium-234 in seawater. *Mar. Chem.*, **74**, 15-28.
- **Benitez-Nelson, C.R.** (2000) The Biogeochemical Cycling of Phosphorus in Marine Systems. *Earth Sci. Rev.*, **51**, 109-135.
- **Benitez-Nelson, C.R.** (2000) Phosphorus cycling in coastal marine ecosystems. *Investigacion Y Ciencia* (Scientific American-Spanish language version), **5**, 36-38.
- **Benitez-Nelson, C.R.**, K. O. Buesseler and G. Crossin (2000) Upper ocean carbon export, eddy diffusivity and horizontal transport in the southwestern Gulf of Maine. *Cont. Shelf Res.*, **20**, 707-736.
- **Benitez-Nelson, C.R.** (2000) Phosphorus in the upper ocean. *Ciencia al Dia Internacional*, **3**, 1: <http://www.ciencia.cl/CienciaAlDia/volumen3/numero1/>.
- **Benitez-Nelson, C.R.** and K. O. Buesseler (1999) ^{32}P , ^{33}P , ^7Be and ^{210}Pb : Atmospheric fluxes and utility in tracing stratosphere/troposphere exchange. *J. of Geophys. Res.*, **104**, 11745-11754.
- **Benitez-Nelson, C.R.** and K. O. Buesseler (1999) Temporal variability of inorganic and organic phosphorus turnover rates in the coastal ocean. *Nature*, **398**, 502-505.
- Buesseler, K. O., L. Ball, J. Andrews, **C. Benitez-Nelson**, R. Belastock, F. Chai, and Y. Chao (1998) Upper ocean export of particulate organic carbon in the Arabian Sea derived from Thorium-234. *Deep-Sea Res. II, Special Arabian Sea Issue*, **45**, 2461-2488.
- **Benitez-Nelson, C.R.** and K. O. Buesseler (1998) New techniques for the measurement of ^{32}P and ^{33}P activities in rain and seawater. *Anal. Chem.*, **70**, 64-72.
- Buesseler, K. O. and **C. R. Benitez** (1994) Determination of mass accumulation rates and sediment inventories in the deep Black Sea. *Deep-Sea Res. II*, **41**, 1605-1615.

BOOKS:

- Hardee, ML, **Benitez-Nelson CR** (2004, revised 2019) Introduction to Oceanography Lab Manual: MSCI 101, Kendall-Hunt Publishing, 216 pp. ISBN: 978-0-7575-1052-6
- Hardee, ML, **Benitez-Nelson, CR** (2008, revised 2021) Introduction to Biological Oceanography Lab Manual (MSCI 102), Kendall-Hunt Publishing, 215 pp. ISBN: 978-0-7575-5027-0

Non-Reviewed white papers and articles:

[Flourishing Children, Healthy Communities, and a Stronger Nation: The U.S. Early Years Climate Action Plan](#), Task force Member, 2023.

PUBLISHED ABSTRACTS (* Denotes my graduate student or postdoc author,

**Denotes undergraduate student author):

- *Ferri, VM, Baumann, MS, Smith, EM, **Benitez-Nelson, CR** (2026) Defining and Delineating Blackwater Systems in South Carolina Using Dissolved Organic Carbon Concentration and Its Inherent Optical Properties. 2026 Coastal Science Research Symposium, Charleston, SC, June 2026.
- Benitez-Nelson, CR**, Moore, WS (2026) INVITED. Potential Impacts of Submarine Groundwater Discharge on Dissolved Oxygen Concentrations in Estuarine and Coastal Waters. 2026 Ocean Sciences Meeting. Glasgow, Scotland, February 2026.
- *Lease, KB, Frame, MK, **Benitez-Nelson, CR** (2026) Nutrient Legacies in South Carolina Lakes: Precipitation and Land Use as Shaping Forces Over 20 Years (1999-2023). 2026 Ocean Sciences Meeting. Glasgow, Scotland, February 2026.
- *Lease, KB, Frame, MK, **Benitez-Nelson, CR** (2026) From Ridge to River: A Case study of nutrient transport in South Carolina's Santee River Basin. 2026 Ocean Sciences Meeting. Glasgow, Scotland, February 2026.
- **Coli, N, Tappa, E, Staines, S, Frame, MK, **Benitez-Nelson, CR** (2026) Elemental Stoichiometry of Sinking Particles in the Santa Barbara Basin Over the Past Three Decades. 2026 Ocean Sciences Meeting. Glasgow, Scotland, February 2026.
- Chaza, T, Coli, N, Gao, X, Masiello, CA, **Benitez-Nelson, CR** (2026) Characterization of Sinking Particulate Organic Carbon Biogeochemical Variability in the Santa Barbara Basin via Solid State ^{13}C NMR. 2026 Ocean Sciences Meeting. Glasgow, Scotland, February 2026.
- Livsey, C, Fehrenbacher, JS, **Benitez-Nelson, CR**, Hill, TM (2026) Culturing *Neogloboquadrina pachyderma* under controlled conditions to resolve environmental vs physiological controls on trace element geochemistry. 2026 Ocean Sciences Meeting. Glasgow, Scotland, February 2026.
- *Bam, W, Pike, S, Maiti, K, **Benitez-Nelson, CR**, Morris, S, Black, E, Lan, P, Buesseler, K (2025) Following the Particles: Using ^{234}Th to Trace Elements Pathways along U.S. GEOTRACES Transects: Café Thorium's journey. AGU Winter Meeting, New Orleans, LA, December 2025.
- Sandoval-Belmar, M, Kessouri, F, Smith, J, Moreno, AR, Anderson, C, Kudela, KM, Sutula, M, Ho, M, Damien, P, **Benitez-Nelson, CR**, McWilliams, J, Edwards, C, Bianchi, D (2025). Modeling anthropogenic and oceanographic drivers of Domoic Acid production in the Southern California Bight, 21st International Conference on Harmful Algae (ICHA), Punta Arenas, Chile, October 2025
- Halvonik-Sanchez, A, Maas, A, **Benitez-Nelson, CR**, Tappa, E, Speiser, DI (2025) How feeding ecology and physiology contribute to niche differences among sympatric tropical chiton. 22nd World Congress of Malacology, Sao Paulo, Brazil, August 2025
- Benitez-Nelson, CR**, Culbreath, M. (2024) Curating a new culture in the academic workplace (Invited) AGU Winter Meeting, Washington D.C., December, 2024
- Fehrenbacher, J, Hupp, NH, **Benitez-Nelson CR**, Meyer, G, Schulte, C, Thompson, A., Tappa, E (2024) Controls on the trace element composition of the polar planktic foraminifera species *Neogloboquadrina pachyderma*: New insights from culture experiments. AGU Winter Meeting, Washington D.C., December, 2024
- Schulte, C., Fehrenbacher, J, Risien, C, **Benitez-Nelson CR**, Tappa, E, Thompson, A (2024) Establishing Planktic Marine Foraminifera as Bioindicators of Ocean Acidification in the Northeastern Pacific Ocean off the Coast of Oregon. AGU Winter Meeting, Washington D.C., December, 2024
- Bam W, Pike SM, **Benitez-Nelson CR**, Maiti, K, Black, EE, Kenyon, J, Lam, PJ, Buesseler K, (2024) Quantifying Export and Remineralization of Bioactive and Particle Reactive Trace

- Elements using ^{234}Th : Café Thorium's journey and contribution to the US GEOTRACES Program. AGU Winter Meeting, Washington D.C., December, 2024
- *Lease, BK, Frame, MK, Benitez-Nelson, CR (2024) Historical Water Quality Trends Throughout Multiple Watersheds in South Carolina. 2024 South Carolina Water Resources Conference, Columbia, SC October 2024
- *Hopper, GM. Smith, EM, **Benitez-Nelson, CR** (2024) Spatial Variability in Dissolved Organic Matter Composition Associated with Blackwater Systems. 2024 American Chemical Society Meeting. New Orleans, LA March 2024.
- Abdalla, A, Van Wyk, A, **Benitez-Nelson, CR**, Hill, T (2024) Cattle-path induced erosion reduced soil organic carbon in montane grasslands: A case study from South Africa 9th International Symposium on Soil Organic Matter, Morocco, March, 2024
- Bam W, Pike SM, Buesseler K, **Benitez-Nelson CR**.(2024) Particulate carbon export and remineralization along the contrasting biogeochemical regimes from Tropical Pacific to Southern Ocean Waters. 2024 Ocean Sciences Meeting. New Orleans, LA February 2024.
- Hupp BN, Fehrenbacher JS, Hasley-Velez S, Doherty S, Davis C, **Benitez-Nelson CR**. (2024) Salp blooms and their potential effect on inorganic carbon burial, 2024 Ocean Sciences Meeting. New Orleans, LA February 2024.
- Yanusiewicz, E, Wojtal, PK Popp, BN, **Benitez-Nelson, CR**, Buesseler, KO, Estapa, M, Roca Martí, M, Close, HG (2024) Organic composition and degradative transformation of particles from surface to mesopelagic depths in two contrasting water columns: the North Atlantic spring bloom and the northeast Pacific, 2024 Ocean Sciences Meeting. New Orleans, LA February 2024.
- Cherry, K, Harvard, E, **Benitez-Nelson, CR**, Tappa, E, Davis, C (2023) Response of planktic foraminifera to rapid climate change in the California Current Ecosystem: Implications for proxy applications. AGU Winter Meeting, San Francisco, CA, Dec 2023
- Harvard, E, Cherry, K, Tappa, E, **Benitez-Nelson, CR**, Davis, C (2023) Response of planktic foraminifera to rapid climate change in the California Current Ecosystem: Implications for proxy applications. AGU Winter Meeting, San Francisco, CA, Dec 2023
- Thompson, A, Fehrenbacher, J, **Benitez-Nelson CR**, Tappa, E, Schulte, C (2023) Examining the geochemistry and assemblages of planktic foraminifera obtained from a yearlong sediment trap deployment in the NEP, AGU winter meeting, San Francisco, CA, Dec. 2023
- Paul, NL, Tappa, E, **Benitez-Nelson, CR**, Santoro, AR (2023) Connections between particle-attached community composition, environmental conditions, and sequestration of particulate organic matter in the Santa Barbara Basin, 4th SoCal NLP Symposium, UCLA, Los Angeles, CA, Nov. 2023.
- Clevenger, **Benitez-Nelson, CR**, Roca-Martí, M, Buesseler, KO (2023) Quantifying carbon export and remineralization during a North Atlantic spring bloom using ^{234}Th - ^{238}U and ^{210}Pb - ^{210}Po study, Chemical Oceanography Gordon Research Conference, New Hampshire July 2023
- Harvard, E, Cherry, K, Davis, C, Tappa, E, **Benitez-Nelson, CR** (2023) A changing response of planktic foraminifera to seasonality in the California Current Ecosystem: Updates from 2018-2021. FORAMS Conference, Perugia, Italy, June 2023
- Benitez-Nelson, CR**, Moore, WS. Bourbonnais, A, Frame, M.K., Humphries, M, Pillay, M (2023) Submarine groundwater discharge as a tracer of mixing and carbon and nutrient sources to Langebaan Lagoon, South Africa. ASLO Summer Meeting, Palma de Mallorca, Spain June 2023
- Clevenger, **Benitez-Nelson, CR**, Buesseler, K, S, Roca-Martí, M (2023) Quantifying carbon export and remineralization during a North Atlantic spring bloom on multiple timescales via a joint ^{234}Th - ^{238}U and ^{210}Pb - ^{210}Po study, ASLO Summer Meeting, Palma de Mallorca, Spain June 2023
- *Faton, KG, Smith, EM, **Benitez-Nelson, CR** (2023) Linking land use changes to stormwater impacts in an urban estuary. ASLO Summer Meeting, Palma de Mallorca, Spain June 2023

- *Hopper, G, Smith, EM, **Benitez-Nelson, CR** (2023) Urbanization affects dissolved organic matter concentration and quality in a southeastern United States watershed. ASLO Summer Meeting, Palma de Mallorca, Spain June 2023
- *Hopper, G, Smith, EM, **Benitez-Nelson, CR** (2023) Urbanization affects dissolved organic matter concentration and quality in a southeastern United States watershed. Southeastern Biogeochemistry Conference, Columbia, SC May 2023.
- **Ferri, V, Hopper, GM, Smith, EM, **Benitez-Nelson, CR** (2023) Spatial and Temporal Variability in Dissolved Inorganic Nitrogen within the Winyah Bay Watershed. Southeastern Biogeochemistry Conference, Columbia, SC May 2023.
- **Ferri, V, Hopper, GM, Smith, EM, **Benitez-Nelson, CR** (2023) Spatial and Temporal Variability in Dissolved Inorganic Nitrogen within the Winyah Bay Watershed. Discover Carolina, Columbia, SC, May 2023.
- Moore, WS, Joye, S, Sibert, R, Shiller, A, Moody, A, **Benitez-Nelson, CR** (2023) The Direct Effect of Submarine Groundwater Discharge on the Concentration of Dissolved Oxygen in Estuarine and Coastal Waters. EGU General Assembly 2023, Vienna, Austria April 2023.
- Moore, WS, Vincent, J, Pinckney, J, Wilson, A, **Benitez-Nelson, CR** (2023) Prediction and verification of a strong pulse of submarine groundwater discharge onto the South Carolina, USA continental shelf and its effect on dissolved oxygen concentrations. Joint 72nd Annual Southeastern/ 58th Annual Northeastern Section GSA Meeting, March 2023.
- Clevenger, S, Buesseler, KO, Bam, W, **Benitez-Nelson, CR**, Kenyon, J, Pike, S, Roca-Martí, M (2022) Quantifying carbon export and remineralization during a spring bloom using ^{238}U - ^{234}Th disequilibrium in the EXPORTS Program, AGU Fall Meeting.
- *Hopper, G, Smith, E, Benitez-Nelson, CR (2022) Spatial and Temporal Variability in Dissolved Organic Matter Sources and Composition within the Winyah Bay Watershed. 9th Annual Southeastern Biogeochemistry Symposium, May 2022
- Benitez-Nelson, CR** (2021) Using the short-lived radionuclide thorium-234 to explore particle fluxes in marine systems. Goldschmidt Conference, July 2021 (virtual)
<https://doi.org/10.7185/gold2021.6520>.
- *Szewzyk, CJ, Smith, EM, **Benitez-Nelson, CR** (2021) Temperature Sensitivity of Aquatic Organic Matter Degradation Varies as a Function of its Source and Lability. ASLO 2021 Aquatic Sciences Meeting, June 2021, virtual.
- Wojtal, PK, Shea, C, Popp, BN, **Benitez-Nelson, CR**, Buesseler, KO, Estapa, ML, Pike, SM, Roca-Marti, M, Doherty, SC, Close, HG (2021) Compound Specific Isotope Analysis of Amino Acids (CSIA-AA) as a Tool for Understanding Mechanisms of Carbon Export Attenuation: Results from northeast Pacific EXPORTS, ASLO 2021 Aquatic Sciences Meeting, June 2021, virtual.
- McNeal, KS, **Benitez-Nelson, CR**, Jones, W (2021) Supporting Underrepresented Undergraduate Students in the Geosciences through Partnerships Between University Housing and Academics, Geological Society of America, Southeastern Section - 70th Annual Meeting, April 2021
- Livsey, CM, *Davis, CV, Fehrenbacher, JS, **Benitez-Nelson, C**, Hill, T (2020) Patterns of trace element geochemistry in cultured *Neogloboquadrina pachyderma* crust calcite, GSA annual meeting (online), October 2020
- *Davis, CV, Livsey, CM, Palmer, HM, Hull, PM, Thomas, E, Hill, TM, **Benitez-Nelson, CR** (2020) Asexual reproduction in the planktic foraminifer *Neogloboquadrina pachyderma* and morphological and trace element variability in the resulting offspring. GSA annual meeting (online), October 2020
- *Frankle, JD, Moore, WS, **Benitez-Nelson, C**, Lang, SQ (2020) Remarkably elevated activity of short-lived radium in an ultramafic hydrothermal system on the Mid-Cayman Rise, AGU winter meeting (online), December 2020.
- Moore, WS, Frankle, JD, Lang, SQ, **Benitez-Nelson, CR** (2020) Enormous excess ^{223}Ra in fluids from the Lost City hydrothermal field, International Ra-Rn Workshop, Xiamen, China, June, 2020

- *Frankle, JD, Moore, WS, **Benitez-Nelson, C**, Lang, SQ (2020) Remarkably elevated activity of short-lived radium in two hydrothermal systems, 8th International Ra-Rn Workshop, Xiamen, China, June, 2020
- Jones, W., **Benitez-Nelson, CR**, McNeal, K. (2020) Increasing Undergraduate Participation in the Geosciences Through the Partnership of University Housing and Academics, Ocean Sciences Meeting, Abstract: ED33A-06, San Diego, CA February 2020.
- Roca Martí, M., Estapa, ML, Masque, P, **Benitez-Nelson, CR**, Buesseler, KO (2020) Polonium-210 and Lead-210 as tracers of particle export and attenuation on the first EXPORTS cruise at Station PAPA, Ocean Sciences Meeting, Abstract: OB11B-02, San Diego, CA February 2020.
- Romero, S. Ka'apu-Lyons, CA, Umhau, B., **Benitez-Nelson, CR.**, Hannides, CC, Close, HG, Jeffrey Drazen, J., Popp, BN (2020) Deep zooplankton rely on small particles in response to low fluxes, Ocean Sciences Meeting, Abstract: OB12A-06, San Diego, CA February 2020.
- Zhou, K, **Benitez-Nelson, CR**. Huang, J., Xiu, P., Sun, Z., Dai, M. (2020) Decoupling between particulate carbon and biogenic silica export within North Pacific Subtropical Gyre cyclonic eddies, Ocean Sciences Meeting, Abstract: OB14E-0416, San Diego, CA February 2020.
- Close, HG, Wojtal, PK, Henderson, LC, **Benitez-Nelson, CR**, Buesseler, KO, Estapa, ML, Pike, SM, Popp, BN, Roca-Marti, M (2020) Estimating relative flux of phytodetritus, fecal pellets, and bacterial biomass using compound-specific isotope analysis of amino acids at Station Papa (EXPORTS), Ocean Sciences Meeting, Abstract: OB14E-0419, San Diego, CA February 2020.
- Buesseler, KO, **Benitez-Nelson, CR**, Jade Clevenger, S, Drysdale, J, Roca Martí, M, Pike, SM, Resplandy, L, Umhau, B, Wyatt, A (2020) OB14E-0422 Expanding our Use of Thorium-234 as a Particle Flux Tracer in the EXPORTS Program, Ocean Sciences Meeting, Abstract: OB14E-0419, San Diego, CA February 2020.
- Jade Clevenger, S, Buesseler, KO, **Benitez-Nelson, CR**, Drysdale, J (2020) Updates to the classic small volume (2-4L) 234Th analysis protocol, Ocean Sciences Meeting, Abstract: OB24F-0523, San Diego, CA February 2020.
- *McCabe, K., Smith, E, **Benitez-Nelson, CR** (2019) Influence of stormwater management on organic matter dynamics and oxygen demand in urbanizing headwater catchments of a coastal plain river. 2019 AGU Fall Meeting, December 9-13, 2019 San Francisco, CA.
- Moore, WS, Frankle, JD*, Lang, SQ, **Benitez-Nelson, CR** (2019) Enormous excess 223Ra in fluids from the Lost City hydrothermal field. 2019 Goldschmidt Meeting, August 18-23, 2019, Barcelona, Spain
- **Davis, AN, Thunell, RC, Tappa, EJ, **Benitez-Nelson, CR**, Black, DE, Osborne, EO, and Davis, CV (2019) Reconstructing Ocean Acidification Using Fossil Planktonic Foraminifera in the Cariaco Basin. 2019 Ocean Sciences Meeting, February 25 – February 29, San Juan, Puerto Rico
- *McCabe, KM, Smith, EM, **Benitez-Nelson, CR** (2019) Effects of stormwater management practices on nonpoint source BOD loading to coastal waters in South Carolina, Geological Society of America, Southeastern Section, 2019. Charleston, SC
- Buesseler, KO, Benitez-Nelson, CR, Burt, WJ, Clevenger, SJ, Drysdale, J, Francois, R, Pike, S, Resplandy, L, Roca-Martí, L, Blaire Umhau, BP, Wyatt, A (2019) EXPORTS: using high resolution studies of thorium-234 at Ocean Station PAPA to elucidate spatial and temporal variability in particle export and attenuation, 2019 Ocean Sciences Meeting, February 25 – February 29, San Juan, Puerto Rico
- **Weirich, N, McCabe, K.; **Benitez-Nelson, C.**; Smith, E. (2018). Are stormwater ponds hot spots of BOD5 production? 2018 South Carolina Water Resources Conference, October, 2018, Columbia, SC.
- *Schroer, W. F.; **Benitez-Nelson, C.**; Smith, E.; Ziolkowski, L. (2018). Drivers of Sediment Accumulation in South Carolina stormwater ponds, 2018 South Carolina Water Resources Conference, October, 2018, Columbia, SC.

- Zhou, K. Huang, J., Xiu, P., **Benitez-Nelson, C.R.**, Sun, Z., Dai, M. (2019) Particulate carbon and silica export mediated by cyclonic eddies at Station ALOHA. The Fourth Xiamen Symposium on Marine Environmental Sciences, January 2019, Xiamen China.
- Popp, B.N, Hannides, C.S., Close, H.H, **Benitez-Nelson, C.R.**, Umhau, B. and Drazen, J.C. (2018) Compound-specific isotope analyses reveal varying seasonal zooplankton-particle interactions. (Abstract ID: XXX), 2018 Goldschmidt Conference, August 2018, Boston MA.
- Benitez-Nelson, C.R. (2018) The building blocks of life: From oceanic to molecular scales and back again, 2018 Ocean Sciences Meeting, February 12 – February 16, Portland, Oregon. INVITED PLENARY
- *Bell, DW, Pellechia, P, Ingall, E.D., **Benitez-Nelson, CR.** (2018). Dissolved Organic Phosphorus Composition: New Insights from Electrodialysis-Reverse Osmosis Isolation and Solution ³¹P-NMR Analysis (Abstract ID: BN14B-1030) 2018 Ocean Sciences Meeting, February 12 – February 16, Portland, Oregon
- Drazen, J.C, Romero-Romero, Lyons, C, Gloeckler, K., Close, H.G., **Benitez-Nelson, C.R.**, Popp, B. N. (2018) Evaluating variations in the importance of small particles as a food source to the mesopelagic micronekton from the central gyre to the equator in the North Pacific. (Abstract ID: ME34A-0960), 2018 Ocean Sciences Meeting, February 12 – February 16, Portland, Oregon.
- Shanahan, M, Wilsom, AM, Smith, EM, **Benitez-Nelson, CR** (2017) Impact of Coastal Development and Marsh Width Variability on Groundwater Quality in Estuarine Tidal Creeks H43J-1781. AGU Fall Meeting, Dec 11-15, 2017 New Orleans, LA.
- *Bell, DW, Denham, S, Smith, EM, **Benitez-Nelson, CR.** Invited, Nov. 2017. Evaluating seasonal community nutrient status with ecological stoichiometry in a salt marsh tidal creek. CERF 2017 Biennial Conference, November, Providence, RI
- Van Meerssche, E., Pinckney, J, **Benitez-Nelson, CR**, Greenfield, D, (2017) The influence of the environmental factors on the allelopathic effect of domoic acid on natural phytoplankton communities. The 9th U.S. HAB conference, November, Baltimore, MD
- *Schroer, W. F.; **Benitez-Nelson, C.**; Smith, E.; Ziolkowski, L. (2017). Coastal Stormwater Detention Ponds: Sediment, Accumulation, and Nutrient Sequestration (Abstract ID: 29040), 2017 ASLO Winter Meeting, February 26 – March 3, Honolulu, HI.
- Drazen, J.C.; Gloeckler, K., Choy, C.A., Close, H.G., Hannides, C. C., **Benitez-Nelson, C.R.**, Umhau, B., Popp, B. N., (2017) Small Plankton may Form a Previously Overlooked Food Source for Mesopelagic Zooplankton and Micronekton (Abstract ID: 29671), 2017 ASLO Winter Meeting, February 26 – March 3, Honolulu, HI.
- Close, H. G.; Ka'apu-Lyons, C. A., Grabb, K. C., Bour, A. L., Wallsgrove, N., Umhau, B. P., **Benitez-Nelson, C.R.**, McCarthy, M.D., Drazen, J.C., Popp, B.N. (2017) Heterotrophic Influence on Organic Matter at Epipelagic vs. Mesopelagic Depths Reflected in Compound Specific Stable Isotope Patterns. (Abstract ID: 30048), 2017 ASLO Winter Meeting, February 26 – March 3, Honolulu, HI.
- Van Meerssche, E., Pinckney, J, Greenfield, D, **Benitez-Nelson, CR** (2016) The allelopathic effect of domoic acid on a natural phytoplankton community composition. The 17th conference on Harmful Algae, Brazil.
- **Palmer, ER, Hannides, CS, Drazen, JC, Popp, BN, **Benitez-Nelson, CR** (2016). Zooplankton Phosphorus concentrations and Redfield stoichiometry in the central tropical North Pacific, Geological Society of America Southeastern Section, 65th Annual Meeting. 31 March 2016 – 1 April 2016, Columbia, SC.
- *Umhau, B, Motta, LC, Blum, Popp, BN, Ka'apu-Lyons, C., **Benitez-Nelson, CR.** (2016). Latitudinal changes in ²³⁴Th derived mercury, carbon, and nutrient particle fluxes in the central Tropical North Pacific, Geological Society of America Southeastern Section, 65th Annual Meeting. 31 March 2016 – 1 April 2016, Columbia, SC.
- Hannides, CC Popp, BN, Drazen, J, Close, HG, **Benitez-Nelson, CR** Grabb, CZ, Umhau, B, Ka'apu-Lyons, CA, , K (2016) B31A-03: Midwater Zooplankton Response to Seasonality in

- Export Flux in the North Pacific Subtropical Gyre, 2016 Ocean Sciences Meeting, February 22-26, New Orleans, LA
- Grabb, KC, **Benitez-Nelson, CR**, Drazen, J, Close, HG, Hannides, CC, Ka'apu-Lyons, CA, Umhau, B, Popp, B (2016) B34A-0331: Characterizing seasonal contribution of particles from the surface ocean to the mesopelagic food web through amino acid compound specific isotopic analysis and ²³⁴Thorium measurements, 2016 Ocean Sciences Meeting, February 22-26, New Orleans, LA
- *Bell, D, Denham, S, Smith, E, **Benitez-Nelson, CR**, Richardson, TL (2016) B54A-0402: Beyond the Blue: C:N:P relationships across tidal and seasonal time-scales within a salt-marsh estuary, 2016 Ocean Sciences Meeting, February 22-26, New Orleans, LA
- *Umhau, B, Motta, LC, **Benitez-Nelson, CR**, Close, HG, Hannides, CC, Popp, BN, Blum, JD, Drazen, J, Grabb, KC (2016) CT21A-01: Characterization of Mercury Particle Flux Using ²³⁸U:²³⁴Th Disequilibria in the North Pacific Subtropical Gyre, 2016 Ocean Sciences Meeting, February 22-26, New Orleans, LA
- Motta, LC, Blum, JD, Popp, P, Drazen, J, Hannides, CC, Close, HG, Umhau, B., **Benitez-Nelson, CR**. (2016) CT41A-04 Mercury Stable Isotopes Reveal Deep Methylation of Mercury and its Uptake into the Open Ocean Food Web, 2016 Ocean Sciences Meeting, February 22-26, New Orleans, LA
- Scranton, MI, Taylor, GT, Thunell, R, Tappa, E, **Benitez-Nelson, CR**, Muller-Karger, F, Lorenzoni, L, Astor, Y (2016) ME34D-0825: Anomalous $\delta^{13}C$ in POC at the chemoautotrophy maximum in the Cariaco Basin, 2016 Ocean Sciences Meeting, February 22-26, New Orleans, LA
- Lorenzoni, L, Muller-Karger, ME, Rueda-Roa, DT, Thunell, R., Scranton, MI, Taylor, GT, **Benitez-Nelson, CR**, Montes, E, Astor, YM, Rojas, J (2016) OD14B-2420: The CARIACO Ocean Time-Series: two decades of oceanographic observations to understand linkages between biogeochemistry, ecology, and long-term environmental variability. 2016 Ocean Sciences Meeting, February 22-26, New Orleans, LA
- Osborne, E., Thunell, R., Bizimis, M, Buckley, W, **Benitez-Nelson, C**, Chartier, C (2015) A History of Warming Sea Surface Temperature and Ocean Acidification Recorded by Planktonic Foraminifera Geochemistry from the Santa Barbara Basin, California, (Abstract ID: PP33C-2321) 2015 FALL AGU Meeting, San Francisco, CA.
- Osborne, E., Thunell, R., Gruber, N., **Benitez-Nelson, C.**, and Cai, W., (2015) Planktonic foraminiferal shell thickness as a carbonate ion concentration proxy, SCOR Workshop on the Biology of Planktonic Foraminifera, Catalina Island, CA, September 2015
- Benitez-Nelson, C.R.**, Thunell, R., Pinckney, J., Lorenzoni, L., Montes, E., Muller-Karger, F, Scranton, M., Taylor, G., Varela, R., Astor, Y. (2015) Elemental Composition (C, N and P) of Sinking and Suspended Particulate Matter in the Cariaco Basin, Venezuela. February 2015 ASLO Winter Meeting Granada, Spain
- Scranton, M., Taylor, G., Muller-Karger, F., Lorenzoni, L., Fanning, K., Thunell, R., **Benitez-Nelson, C.R.**, Astor, Y, Varela, R. (2015) A source for "missing" oxidant and reductant at the redox interface of the Cariaco Basin. February 2015 ASLO Winter Meeting Granada, Spain
- Osborne, E., Bizimis, M., Wei-Jun Cai, WJ, Wang, YC, Iglesias-Rodriguez, D., **Benitez-Nelson, CR**, Holm, JA, Thunell, RC (2014) Planktonic foraminiferal response to ocean acidification in the Santa Barbara Basin over the last century. 2014 FALL AGU Meeting, San Francisco, CA.
- Longo, A.F., Ingall, E.D., Diaz, J.M., Oakes, M., King, L.E., Mihalopoulos, K., Violaki, K., Avila, A., Nenes, A., **Benitez-Nelson, C.R.**, Brandes, J., McNulty, I., Vine, D.J. (2014) Aerosol Phosphorus Composition: New Insights from Synchrotron X-ray Spectroscopy. 2014 FALL AGU Meeting, San Francisco, CA.
- Taylor, GTT, Scranton, MI, Thunell, R, **Benitez-Nelson, CR**, Lorenzoni, L, Astor, Y, Varela, R. and Muller-Karger, F. (2014) Atypical Behavior of the Biological Carbon Pump in an Oxygen-Depleted Water Column: The Cariaco Basin Case Study. Ocean Carbon & Biogeochemistry Summer Workshop, July 21-24, 2014, Woods Hole, MA.

- Benitez-Nelson, CR**, Thunell, R, Pinckney, J, Lorenzoni, L., Montes, E., Muller-Karger, F., Scranton, M., Taylor, GTT, Varela, R, Astor, Y. (2014) Elemental Composition (C, N and P) of Sinking and Suspended Particulate Matter in the Cariaco Basin, Venezuela. Ocean Carbon & Biogeochemistry Summer Workshop, July 21-24, 2014, Woods Hole, MA.
- Lorenzoni, L, Muller-Karger, F, Montes, E, Taylor, G, Thunell, R, Scranton, M, **Benitez-Nelson, CR**, Astor, Y., Varela, R., Troccoli, L. Fanning, K. (2014) The CARIACO Ocean Time-Series: 19 years of international collaboration in ocean biogeochemistry and ecological research. Ocean Carbon & Biogeochemistry Summer Workshop, July 21-24, 2014, Woods Hole, MA.
- *Maldonado, D. A., Keppler, C., **Benitez-Nelson, C.R.**, Greenfield, D.I. (2014) Coupling phytoplankton assemblage composition and physiology with seasonal nitrogen and phosphorus levels in Charleston Harbor and Winyah Bay, SC (Abstract ID: 13369). 2014 Ocean Sciences Meeting, Honolulu, HI
- *Bell, D. W., **Benitez-Nelson, C. R.**, Ingall, E. D., Longo, A., Chambers, L. R. (2014) Dissolved organic phosphorus characterization across a riverine/oceanic interface isolated using electro dialysis and reverse osmosis. (Abstract ID: 15525) 2014 Ocean Sciences Meeting, Honolulu, HI.
- Benitez-Nelson, C. R.**; **McParland, E., *Opseth, A.; Taylor, G. T.; Thunell, R. C (2014), Phosphorus Cycling across the oxic/anoxic interface of the Cariaco Basin (Abstract ID: 15584) 2014 Ocean Sciences Meeting, Honolulu, HI.
- Scranton, M.I., Taylor, G.T., Muller-Karger, F.M., Lorenzoni, L., Montes, E., Fanning, K., Thunell R.T., **Benitez-Nelson, C.R.**, , Astor, Y. and R. Vaerla (2014) Interannual and subdecadal variability in hydrography and nutrient concentrations in the Cariaco Basin. European Geophysical Union General Assembly April 2014, Vienna, Austria.
- Osborne, E.B; Thunell, R.C., **Benitez-Nelson, C.R.**; Cai, W-J. 2013. Foraminiferal Area Density as a Proxy for Changing Ocean Acidity in the California Current System. Paper presented at the AGU Winter Meeting, San Francisco CA. USA December 2013, 2013AGUFMPP11C1848O.
- **Downer, M. M.; Pal, S.; **Benitez-Nelson, C.**; Bennett, M. (2013) Phosphorus distributions in the Chukchi Sea (Abstract ID: 11072). ASLO Winter Meeting, New Orleans, Louisiana.
- **McParland, E. L.; Benitez-Nelson, C. R.; Lorenzoni, L.; Rollings, A. (2013) Understanding the composition of phosphorus in suspended particles of the Cariaco Basin (Abstract ID: 11168). ASLO Winter Meeting, New Orleans, Louisiana.
- Pinckney, J.; **Benitez-Nelson, C. R.**; Thunell, R.; Muller-Karger, F.; Lorenzoni, L.; Troccoli, L.; Varela, R. (2013) Climate driven changes in phytoplankton diversity and community composition in the Cariaco Basin (1995-2011) (Abstract ID: 11379). ASLO Winter Meeting, New Orleans, Louisiana.
- Benitez-Nelson, C.R.**; Anderson, C. R.; Thunell R.; Sekula-Wood, E.; Siegel, D.(2013) Increasing *Pseudo-nitzschia* abundance and domoic acid toxicity of sinking particles in the Santa Barbara Basin associated with changes in source waters (Abstract ID: 11598). ASLO Winter Meeting, New Orleans, Louisiana.
- Benitez-Nelson, CR**, Thunell, RC, Sekula-Wood, E, Siegel, D., Anderson, C (2012), Increasing *Pseudo-nitzschia* Abundance and Domoic Acid Toxicity of Sinking Particles in the Santa Barbara Basin Associated with Changes in Source Waters. CalCOFI Conference, 3-5 December 2012, Pacific Grove, CA
- Kanakidou, M., Duce, R., Prospero, J., Baker, A.R., **Benitez-Nelson, C.R.**, Dentener, F.J., Hunter, K.A., Kubilay, N., Liss, P.S., Mahowald, N., Okin, G., Sarin, M. Surapipith, V., Tegen, I., Tsigaridis, K., Uematsu, M., van Aardenne, J., Zamora, L.M., Zhu, Y. (2012) Fluxes of Organic N and P in the Ocean, American Meteorological Association 93rd annual conference, Austin, TX, Jan. 6-10, 2013.
- Finch, J., S. Pillay, M. Humphries, T., Hill, **C.R. Benitez-Nelson** (2012) A new record of past environmental change from the Mfabeni Peatland, South Africa: stratigraphy, chronology and

- sediment characterization. South African Society for Quaternary Research Conference, Gobabeb, Namibia, Sept. 13-16, 2012.
- Humphries, M.S., J. Finch, J., **C.R. Benitez-Nelson**, S. Pillay (2012) Chemical sedimentation, peat formation, and development of a paleoenvironmental record for the subtropical coastal plain of Maputaland, South Africa. 9th INTECOL International Wetlands Conference, Orlando Florida, June 4-8, 2012.
- Bargu, S., M. W. Silver, M. D. Ohman, C.R. Benitez-Nelson, D.L. Garrison (2011) The mystery behind Hitchcock's film "The Birds": The Cause Revealed? 6th Symposium on Harmful Algae in the United States, Austin Texas, Nov 13-17, 2011.
- ***Anderson, C. Kudela, R., Shulman, I., Penta, B., Chao, Y., Siegel, D., C.R. Benitez-Nelson (2011) Are numerical models the way forward for HAB prediction in California? 6th Symposium on Harmful Algae in the United States, Austin Texas, Nov 13-17, 2011.**
- ***Anderson, C.; Kudela, R.; Benitez-Nelson, C.; Lane, J.; Caho, Y.; Siegel, D. (2011) Merging MODIS Ocean Color and a Downscaled Regional Ocean Model to Predict Harmful Algal Blooms for Coastal California WCRP OSC Climate Research in Service to Society, Denver, CO 24-28 October 2011.**
- ****Bennett, M. A; Ranhofer, M.; Benitez-Nelson, C.; Thunell, R.; Plessinger, W.; Tappa, E. (2011) Bioavailability of P across and oxic/anoxic boundary (Abstract ID: 8027) 2011 ASLO Winter Meeting, San Juan, Puerto Rico.**
- ***Pal, S.; Benitez-Nelson, C.; Carbon and phosphorus dynamics in the Chukchi Sea (Abstract ID: 8159) 2011 ASLO Winter Meeting, San Juan, Puerto Rico.**
- *Anderson, C.; Kudela, R.; **Benitez-Nelson, C.**; Lane, J.; Hayashi, K.; Sekula-Wood, E.; Burrell, C.; Siegel, D.; Goodman, J.; Brzezinski, M. (2011) Is there a link between the 2009-2010 Central pacific ENSO Event and prolonged Harmful Algal Blooms in Central California? (Abstract ID: 8544) ASLO Winter Meeting, San Juan, Puerto Rico.
- Puigcorb , V.; Masqu , P.; **Benitez-Nelson, C.**; Bode, A.; Scharek, R.; Fern ndez de Puellas, M. L; Latasa, M. (2011) Determination of POC Export using a combination of ²³⁴Th/²³⁸U and ²¹⁰Po/²¹⁰Pb disequilibria in the NW Mediterranean (Abstract ID: 8608) ASLO Winter Meeting, San Juan, Puerto Rico.
- *Burrell, C. T; Anderson, C.; **Benitez-Nelson, C. R.**; Thunell, R.; Tappa, E. (2011) Degradation of the marine toxin Domoic Acid in coastal systems (Abstract ID: 8933) ASLO Winter Meeting, San Juan, Puerto Rico.
- Joye, S. B; Crespo-Medina, M.; Hunter, K. S; Vossmeier, A.; Beer, L.; Bowles, M. W; Asper, V.; Diercks, A.; Teske, A. P; Benitez-Nelson, C. (2011) The Microbial Slime Highway: Oil Transport to the benthos and consequences on microbial Dynamics in Deep Gulf of Mexico Sediments. (Abstract ID: 9090) ASLO Winter Meeting, San Juan, Puerto Rico.
- Madden, L., Bedward, J.C., Wiebe, E.N., **Benitez-Nelson, C.R.** (2011) Lessons Learned in Summer Camp: A Case Study of the Learning Paths of Three Campers. 2011 National Association for Research in Science Teaching (NARST) Conference., April 3-6, 2011, Orlando Florida.
- Thunell, R., **C.R. Benitez-Nelson**, F. Muller-Karger, L. Lorenzoni, G. Taylor and M. Scranton. The Cariaco Basin Ocean Time Series: Production, Flux and Remineralization of Biogenic Material. 2010 AGU Fall Meeting. *Eos Trans. AGU,XX(XX)* AGU Meet. Suppl., Abstract.
- *Sekula-Wood, E., **Benitez-Nelson, CR**, Bograd, S and Anderson, C. (2010) Is Climate Driving Decadal Trends in Toxic Blooms in the California Current System?. East Pacific Ocean Conference, Mt. Hood, OR 22-25 September 2010.
- *Sekula-Wood, E., **Benitez-Nelson, CR**, Bograd, S and Anderson, C. (2010) Long-Term Trends in Regional Domoic Acid Events Associated with Large-Scale Variability in the California Current System. 14th International Conference on Harmful Algae, Hersonissos-Crete, Greece on 1-5 November 2010.
- *Pal, S., **Benitez-Nelson, C. R.**, Emerson, S. R., Murray, J. W., Kavanaugh, M. T. (2010) Particulate Carbon Export in the North Pacific Ocean Using Th-234-U-238 Disequilibrium. 2010 Ocean Sciences Meeting, Portland Oregon, CO35B-10

- White, A. **Benitez-Nelson, C. R.**, Foster, R.A., Popp, B. N., Prahl, F. G. (2010) Nitrogen Fixation in the Gulf of California and the Eastern Tropical North Pacific: Interannual Variability of Diazotrophic Productivity, Community Composition and Potentially Limiting Factors. 2010 Ocean Sciences Meeting, Portland Oregon, IT11A-07
- *Verdeny, E., **Benitez-Nelson, C.R.**, Masque, P., Puigcorb , V., White, A., Prahl, F.G., Popp, P.N., Foster, R.A., Arthur, K. (2010) The role of community structure and nitrogen fixation on particle export in the Gulf of California and the eastern tropical North Pacific Ocean. 2010 Ocean Sciences Meeting, Portland Oregon, IT11A-08
- Benitez-Nelson, C.R.** (2010) Understanding marine phosphorus composition and the potential impact on particle export in oligotrophic regions (Invited). **Invited** 2010 Ocean Sciences Meeting, Portland Oregon, IT13A-01.
- *Anderson, C., Kudela, R. M, **Benitez-Nelson, C.R.**, Sekula-Wood, E., Chao, Y., Siegel, D. A., Washburn, L., Langlois, G. (2010) Testing Toxin Prediction Models in a California HAB Hotspot. 2010 Ocean Sciences Meeting, Portland Oregon, IT35G-05.
- Dyrhrman, S., **Benitez-Nelson, C.R.**, Haley, S., Orchard, S., Pellechia, P. (2010) Microbial production of phosphonate in marine systems. 2010 Ocean Sciences Meeting, Portland Oregon. IT14A-06
- *Maiti, K., Buesseler, K.O., **Benitez-Nelson, C.R.**, Cochran, K, Dai, M, Dehairs, F., Masque, P., Miller, LA, Bradley, M., Morris. PJ, Miquel, JC, Peine, F, Planchon, F, Rutgers van der Loeff, M, Santschi, PH Turnewitsch, T, Waples, JT (2010) Total and Particulate Thorium-234 Results From GEOTRACES Intercalibration Cruises. 2010 Ocean Sciences Meeting, Portland Oregon, CO23A-02.
- *Sekula-Wood, E., **Benitez-Nelson, C.R.**, Anderson, C, Schnetzer, A., Guillocheau, N, Morton, S., Siegel, D. Thunell, R. (2009) A Historical Record of Vertical Domoic Acid Fluxes from Santa Barbara Basin (CA). November, The Fifth Symposium on Harmful Algae, Ocean Shores, WA.
- Casacuberta, N., Masque, P., Garcia-Orellana J., **Benitez-Nelson C.R.**, Anguita, M., Gasa, J., Garcia-Tenorio, R. (2009) ²¹⁰Pb and ²¹⁰Po biokinetics in chicken and the radiological implications to population. International Topical Conference on Po and Radioactive Pb Isotopes, October, Seville, Spain
- Stukel, M., M. Landry, and **C.R. Benitez-Nelson** (2009) Trophic Cycling and Carbon Export in the California Current Ecosystem. 2009 LTER All Scientists Meeting, 14-16 September, Estes, Colorado.
- *Maiti, K., Buesseler, K.O., Benitez-Nelson, C.R., Lamborg, C.H., Owens, S. (2009) ²³⁴Th Excess and Particle Remineralisation below the Euphotic zone. 2009 AGU Chapman Conference on the Biological Pump in the Oceans. September, Brockenhurst, Hampshire, England.
- Benitez-Nelson, C.R.**, Verdeny, E., Masque, P., White, A. Popp, B., Prahl, F., Foster, R. (2009) Investigating the Role of Nitrogen Fixation in Exporting Particulate Carbon to Depth. 2009 AGU Chapman Conference on the Biological Pump in the Oceans. September, Brockenhurst, Hampshire, England.
- Wejnert, K.E., Thunell, R.C., **Benitez-Nelson, C.R.** (2009) P/Ca in planktonic foraminifera as a new proxy for marine PO₄: Results from the Cariaco Basin. 2009 Goldschmidt Conference, June, Davos, Switzerland.
- Silver, M.W., Bargu, S.B., **Benitez-Nelson, C.R.**, Coale, S. L. Roberts, K.J., Garcia, A.C. (2009) Domoic acid toxins in the oceanic Pacific: Natural components and enhanced presence in iron fertilized communities. 2009 ASLO Winter Meeting, Nice, France.
- Bargu, S.B., Silver, M.W., Garcia, A.C. Coale, S. L. Roberts, K.J. **Benitez-Nelson, C.R.** (2009) *Pseudo-nitzschia* and domoic acid in naturally iron-riched and iron-poor areas of the Subarctic Pacific. 2009 ASLO Winter Meeting, Nice, France.
- Benitez-Nelson, C R** (2009) Short-lived radionuclides as tracers of particle flux in the oceans: A look towards the future. **Invited** 2009 ASLO Winter Meeting, Nice, France.

- Villa, M, Puigcorbe, V; Verdeny, E, Garcia-Solsona, E, Bruach, J M; Garcia-Orellana, J, **Benitez-Nelson, C R**, Masque, P (2009) Testing the potential of $^{90}\text{Y}/^{90}\text{Sr}$ Disequilibria in estimating oceanic POC export over daily timescales. 2009 ASLO Winter Meeting, Nice, France.
- Verdeny, E, Masqué, P, **Benitez-Nelson, C R**, Garcia-Orellana, J, Villa, M, Miquel, J, Stewart, G, Alonso-González, I, Baltar, F, Arístegui, J (2009) Examining the influence of mesoscale eddies and atmospheric deposition on particle export fluxes using ^{234}Th and ^{210}Po . 2009 ASLO Winter Meeting, Nice, France.
- Mahowald, NM, Jickells, TD, Baker, AR, Artaxo, P, **Benitez-Nelson, C**, Bergametti, G, Bond, T, Chen, Y, Cohen, DD, Herut, B, Kubilay, N, Losno, R, Maenhaut, W A, McGee, K, Okin, G, Siefert, R, Tsukuda, S, Luo, C. Human Perturbation of Atmospheric Phosphorus (2008) *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract OS14B-08.
- Benitez-Nelson, C. R.**, Sekula, E., Schnetzer, A., Caron, D. Anderson, C. Thunell, R., Morton, S, Gully, J., Burns, J Ferry, J. (2008) Transport and fate of the marine biotoxin, Domoic Acid, in the Santa Barbara Basin, California. Regional Workshop for Harmful Algal Blooms in California Coastal Waters Workshop Proceedings, April 2-3, 2008. INVITED
- Thunell, R C, **Benitez-Nelson, C R**, Muller-Karger, F, Lorenzoni, L, Fanning, K, Scranton, M, Varela, R, Astor, Y, (2008) Silicon cycling in the Cariaco Basin, Venezuela: Seasonal variability in silicate availability and the Si:C:N composition of sinking particles. 2008 Ocean Sciences Meeting, Orlando Fl.
- Richardson, T L, Ranhofer, M L, **Benitez-Nelson, C R** (2008) Taxon-specific dissolved organic phosphorus utilization by estuarine phytoplankton determined using an enzyme-labeled fluorescence approach.. 2008 Ocean Sciences Meeting, Orlando Fl.
- Verdeny, E, Masque, P, Garcia-Orellana, J, **Benitez-Nelson, C R**, Maiti, K, Buesseler, K O, (2008) Examining particle flux within mesoscale eddies using ^{210}Pb - ^{210}Pb disequilibrium. 2008 Ocean Sciences Meeting, Orlando Fl.
- *DuBois, S L, **Benitez-Nelson, C R**, Berelson, W, Hammond, D; Paneva, R. (2008) Characterization of inorganic and organic phosphorus species in the San Pedro Basin, California. 2008 Ocean Sciences Meeting, Orlando Fl.
- **Herron, S E, **Benitez-Nelson, CR**, Thunell, R. (2008) Insights into sediment trap fluxes: Possible underestimation of opal fluxes in the Santa Barbara and Cariaco Basins. 2008 Ocean Sciences Meeting, Orlando Fl.
- Stukel, M R, Landry, M R, **Benitez-Nelson, C R**, Goericke, R (2008) Carbon export and the fate of primary productivity in the California Coastal Current Ecosystem. 2008 Ocean Sciences Meeting, Orlando Fl.
- Diaz, J M, Ingall, E I, **Benitez-Nelson, C R**, Brandes, J A (2008) A Novel mechanism for marine phosphorus sequestration via burial and transformation or diatom-derived polyphosphate in sediments. 2008 Ocean Sciences Meeting, Orlando Fl.
- *Lyons, G C; Benitez-Nelson, C R; Thunell, R; Phosphorus composition of sinking particles from Guaymas Basin, Gulf of California. 2008 Ocean Sciences Meeting, Orlando Fl.
- *Maiti, K., **Benitez-Nelson, C.R.**, M.W. Lomas, and J. W. Krause (2007) Estimates of Export production in Sargasso Sea During Winter Storms Prior to Seasonal Stratification, *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract OS11B-0501.
- Lorenzoni, L. Muller-Karger, F. E., Thunell, R.C., Tappa, E., **Benitez-Nelson, C.R.**, Hollander, D., Varela, R., Astor, Y., and C. Hu (2007) The CARIACO Time Series: Carbon fluxes in a tropical, continental upwelling margin, *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract OS43C-02.
- Muller-Karger, F., Varela, R., Thunell, R. C., Scranton, M. I.; Taylor, G. T., Astor, Y. M., **Benitez-Nelson, C. R.**, Lorenzoni, L., Tappa, E. J., Goni, M. A., Rueda, D. T., and C. Hu (2007) Importance of Bottom Nepheloid Layers on the Transport and Delivery of Sediment to the Eastern Cariaco Basin, Venezuela, *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract OS43C-08.

- *Lyons, G., **Benitez-Nelson, C.R.**, Thunell, R. (2007) Phosphorus Composition of Sinking Particles from Guaymas Basin, Gulf of California, Estuarine Research Foundation Conference, 4-8 November, 2007, Providence, RI.
- *Sekula, E., **Benitez-Nelson, C.R.**, Thunell, R., Morton, S., Burns, J., Ferry, J. (2007) Persistence of the Marine Biotoxin Domoic Acid at Depth in the Santa Barbara Basin, California, Estuarine Research Foundation Conference, 4-8 November, 2007, Providence, RI.
- Lorenzoni L., Muller-Karger F.E., Thunell R.C., Tappa E., **Benitez-Nelson C.R.**, Hollander D., Varela R., Astor Y. and Hu C. (2007) Influence of small scale rivers on the transport and delivery of sediment to the eastern Cariaco Basin, Venezuela. Joint IMBER/LOICZ Continental Margins Open Science Conference 17-21 Sept. 2007, Shanghai, China. Science highlight, http://www.imber.info/Science_highlight/Lorenzoni_Feb08.html
- Chen, F-Z, W-J Cai, Y. Wang, and **C.R. Benitez-Nelson** (2007) Sea surface $p\text{CO}_2$ -SST relationships, biogeochemical cycling of inorganic Carbon and net community production estimation in a cold-core cyclonic eddy in the lee of the Hawaiian Islands, SOLAS Open Science Conference 5-9 March 2007, Xiamen, China.
- *Maiti, K., **Benitez-Nelson, C.R.**, Rii, Y., Bidigare, R. (2007) Extensive cyclonic particle remineralization within highly productive cold-core cyclonic eddies in the lee of the Hawaiian Islands (Abstract ID: 357). 2007 ASLO Fall Meeting, 4-9 February Santa Fe, NM.
- Benitez-Nelson, C.R.**, Sannigrahi, P., Pellechia, P., Thunell, R.C. (2007) Particulate phosphorus composition in the Cariaco Basin, Insights from Phosphorus and Carbon NMR (Abstract ID: 951). 2007 ASLO Fall Meeting, 4-9 February Santa Fe, NM.
- Brandes, J.A., Ingall, E.; **Benitez-Nelson, C.R.**, Paterson, D., de Jonge, M., Northrup, P. (2007) Nanoscale distribution and speciation of phosphorus within Cariaco Basin sinking particulates. (Abstract ID: 224). 2007 ASLO Fall Meeting, 4-9 February Santa Fe, NM.
- *Sekula, E.N., **Benitez-Nelson, C.R.**, Thunell, R., Tappa, E., Styles, R.M. (2007) Phosphorus cycling in a suboxic basin. (Abstract ID: 541) 2007 ASLO Fall Meeting, 4-9 February Santa Fe, NM.
- *DuBois, S.L., **Benitez-Nelson, C.R.**, Paneva, R., Berelson, W., Hammond, D., Paukert, A. (2007) Organic and inorganic phosphorus composition within sediments of San Pedro sediment traps (Abstract ID: 650) 2007 ASLO Fall Meeting, 4-9 February Santa Fe, NM.
- *Lyons, G.C., **Benitez-Nelson, C.R.**, Thunell, R. (2007) Phosphorus composition of sinking particulates from Guaymas Basin, California. (Abstract ID: 861) 2007 ASLO Fall Meeting, 4-9 February Santa Fe, NM.
- Orchard, E.D., Ammerman, J.W., **Benitez-Nelson, C.R.**, Lomas, M.W., Dyhrman, S.T. (2007) Polyphosphate Metabolism in the Marine Cyanobacteria *Trichodemsium* and *Crocospaera*. (Abstract ID: 350) 2007 ASLO Fall Meeting, 4-9 February Santa Fe, NM.
- **Phillips, K., **C. R. Benitez-Nelson**, M. Henry (2006) ScienceQuest: An After-School Science Experience, SMEA-GAME Joint Conference, 20-22 October, Seabrook Island, SC.
- Stukel, M., M. Landry, and **C.R. Benitez-Nelson** (2006) Carbon export in the California current ecosystem. 2006 LTER All Scientists Meeting, 20-23 September, Estes, Colorado.
- *Maiti, K., **C. R. Benitez-Nelson**, J.L. Carroll (2006). Particle dynamics at the Barents Sea ice-margin. 2006 GSA Annual Meeting 22-25 October, Philadelphia, PA Vol. 38.
- *Ranhofer, M.L., **C.R. Benitez-Nelson**, R. Thunell, R. Styles. Distribution, Fluxes, and Potential Sources of Sinking Particulate Phosphorus in the Cariaco Basin, Venezuela. 2006 ASLO Summer Meeting.
- Noble, A.E., K. Maiti, **C. R. Benitez-Nelson**, M. A. Saito. Cobalt, Manganese, Cadmium and Iron Among the Hawaiian Islands: The Influence of Cyclonic Eddies and Hydrothermal Signals. 2006 ASLO Summer Meeting.
- Blake, D., **C. R. Benitez-Nelson**, J. Waples and K. Buesseler. A 12 Minute History of Thorium-234, 2006 AGU Ocean Sciences Meeting. *Eos Trans. AGU*, 87(36) Ocean Sci. Meet. Suppl., Abstract OS13A-02

- Carroll, J, K. Maiti and **C. R. Benitez-Nelson**. Seafloor Sediment Dynamics within the Barents Sea Marginal ice Zone. 2006 AGU Ocean Sciences Meeting. *Eos Trans. AGU*, 87(36) Ocean Sci. Meet. Suppl., Abstract OS44M-03
- Chen, F., W. Cai, **C.R. Benitez-Nelson** and Y. Wang. Surface Water CO₂ Parameters and Air-sea Exchange Influenced By A Cold Cyclonic Eddy In The Lee Of Hawaii. 2006 AGU Ocean Sciences Meeting. *Eos Trans. AGU*, 87(36) Ocean Sci. Meet. Suppl., Abstract OS16D-03
- Albritton, D., **C. R. Benitez-Nelson** and J. R. Carpenter. ScienceQuest: Increasing Diversity in the Geosciences Through Hands on Learning. 2006 AGU Ocean Sciences Meeting. *Eos Trans. AGU*, 87(36) Ocean Sci. Meet. Suppl., Abstract OS33E-04
- Verdeny, E., P. Masque, J. Garcia-Orellana, J. Bruach-Menchen, **C.R. Benitez-Nelson** and K. Maiti 210Pb-210Po Derived Organic Carbon Export within Cold-Core Cyclonic Eddies in the lee of Hawaii. 2006 AGU Ocean Sciences Meeting. *Eos Trans. AGU*, 87(36) Ocean Sci. Meet. Suppl., Abstract OS16D-06
- *Maiti, K, Y. Rii, **C. R. Benitez-Nelson** and R. Bidigare. Eddy Induced Biological Export in the lee of Hawaii. 2006 AGU Ocean Sciences Meeting. *Eos Trans. AGU*, 87(36) Ocean Sci. Meet. Suppl., Abstract OS12H-04
- **Lyons, G., R. M. Styles, **C.R. Benitez-Nelson**, R. C. Thunell and L. Lorenzoni. Composition of Riverine Derived Particulate Phosphorus in the Cariaco Basin, Venezuela. 2006 AGU Ocean Sciences Meeting. *Eos Trans. AGU*, 87(36) Ocean Sci. Meet. Suppl., Abstract OS35C-01
- Mahaffey, C., **C. R. Benitez-Nelson**, Y. Rii, R. Bidigare and D. M. Karl. Nitrogen dynamics within Hawaiian Lee Eddies: insights using a stable nitrogen isotope approach. 2006 AGU Ocean Sciences Meeting. *Eos Trans. AGU*, 87(36) Ocean Sci. Meet. Suppl., Abstract OS16D-05
- Thunell, R., **C.R. Benitez-Nelson**, F. Muller-Karger, L. Lorenzoni, R. Varela and Y. Astor. Particulate Organic Carbon Cycling in an Upwelling Dominated Continental Margin: Results from the Cariaco Basin Ocean Time Series. 2006 AGU Ocean Sciences Meeting. *Eos Trans. AGU*, 87(36) Ocean Sci. Meet. Suppl., Abstract OS32D-05
- Benitez-Nelson, C. R.**, R. Bidigare, T. Dickey, M. Landry and C. Leonard. E-Flux: Influences of Cyclonic Eddy Activity on Planktonic Food Web Dynamics and Carbon Export in the lee of Hawaii. 2006 AGU Ocean Sciences Meeting. *Eos Trans. AGU*, 87(36) Ocean Sci. Meet. Suppl., Abstract OS11G-02
- *Truesdale, K., **C. R. Benitez-Nelson**, R. Styles and E. Tappa. The effect of sediment trap poisons on particulate phosphorus integrity. 2004 AGU Fall Meeting, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract OS51C-1325
- Benitez-Nelson, C. R.**, L. O. O'Neill, and R. Thunell. Seasonal to interannual depth-dependent changes in phosphorus flux in Cariaco Basin, Venezuela. 2004 AGU Fall Meeting, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract OS33A-0574
- *Ranhofer, M. R., **C. R. Benitez-Nelson**, and R. Thunell. Characterization of phosphorus in sinking particles in Cariaco Basin, Venezuela. 2004 AGU Fall Meeting, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract OS33A-0575
- Ingall, E., J. Brandes, D. Paterson, P. Northrup and **C. R. Benitez-Nelson**. Microscale Phosphorus Distribution and Chemistry in Marine Particles: New Insights From X-ray Absorption Near Edge Structure (XANES) Spectroscopy and X-ray Microscopy. 2004 AGU Fall Meeting, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract OS44B-08
- Springer, A., Williams, D. F., Karabanov, E., Mock, C. J. and **C. R. Benitez-Nelson**. Paleotemperature upon the South Carolina Coastline: A Calibration of the Sedimentary Historical Record. 2004 Annual Geological Society of America Conference. Nov. 7-14th, Denver, CO. 2004
- *O'Neill, L. P. and **C. R. Benitez-Nelson**. Sediment trap inorganic and organic phosphorus composition across an oxic-anoxic interface. 2004. ASLO Summer Research Conference, June 2004.

- Ingall, E, J. Brandes, D. Paterson, P. Northrup, **C. R. Benitez-Nelson**. Examination of marine organic matter using x-ray microscopy and phosphorus x-ray absorption near edge structure (P-XANES) spectroscopy. 2004. ASLO Summer Research Conference, June 2004.
- Pellechia, P., **C. R. Benitez-Nelson**, C. R., L. Kolowith, and R. C. Thunell. The use of solid state ^{31}P NMR and bloch decays to examine phosphorus speciation in an anoxic marine basin. 2004 45th ENC Experimental Nuclear Magnetic Resonance Conference, Pacific Grove, CA, April 18-24.
- Benitez-Nelson, C. R.**, L.O. O'Neill, P. Pellechia, and R. C. Thunell. Phosphorus speciation under anoxic conditions: Insights from the Cariaco Basin. 2004 ASLO/TOS Ocean Research Conference, Honolulu, HI, Feb. 16-20, published program, p. 16.
- Sheridan, C. C., M. R. Landry, **C. R. Benitez-Nelson**, and J. P. Montoya. A synthesis of Hawaii Ocean Time-series (HOT) mesozooplankton data from 1994-2002: Temporal variability in biomass and contribution to elemental cycles. 2003 JGOFS Open Science Conference, May 5-9 Washington D.C. (Best Student Presentation Award)
- Benitez-Nelson, C. R.**, T. K. Gregory, D. M. Karl. Upper ocean and mesopelagic particle export at Station ALOHA in the NPSG derived from ^{234}Th . 2002 AGU Fall Meeting, San Francisco, CA, Dec. 5-12, published program, p. F175.
- Bidigare, R. R., M. P. Seki, C. L. Leonard, **C. R. Benitez-Nelson**, R. D. Vaillancourt and J. J. Polovina. Influence of cyclonic eddies on new production rates in the vicinity of the Hawaiian Islands. North Pacific Marine Science Organization (PICES) 10th Annual Meeting, 7-17 October 2001 (Victoria, INVITED).
- Sansone, F. J., **C. R. Benitez-Nelson**, E. H. DeCarlo, Z. Liangzhong, J. A. Heath and B. J. Huebert. Chemical composition of the steam plume resulting from the ocean lava entry at Kilauea Volcano, Hawaii. 2000 AGU Fall Meeting, San Francisco, CA, Dec. 15-19, published program, p. F1275.
- Benitez-Nelson, C. R.**, A. J. Cundiff, J. A. Heath and B. J. Huebert. Atmospheric P deposition to the Hawaiian Island Chain. 2000 AGU Fall Meeting, San Francisco, CA, Dec. 15-19, published program, p. F175.
- Benitez-Nelson, C. R.**, and D. M. Karl. Phosphorus cycling in the North Pacific Gyre. 2000 AGU Fall Meeting, San Francisco, CA., Dec. 15-19, published program, p. F192 (INVITED).
- Benitez-Nelson, C. R.**, D. M. Karl and K. O. Buesseler. ^{234}Th derived carbon export at Station ALOHA. 2000 AGU Ocean Sciences meeting, San Antonio, TX, Jan. 24-28, published program, p. OS103.
- Benitez-Nelson, C. R.** and K. O. Buesseler. Upper ocean phosphorus cycling in the Gulf of Maine: Utilization of cosmogenic ^{32}P and ^{33}P . 1998 AGU Ocean Sciences meeting, San Diego, CA, Feb. 9-13, published program, p. OS81.
- Benitez-Nelson, C. R.** and K. O. Buesseler (1997). Utilization of ^{32}P , ^{33}P , ^7Be , and ^{210}Pb as tracers of tropospheric aerosol residence times and stratospheric exchange. *EOS*, **78(46)**, 108.
- Buesseler, K. O., L. Ball, J. Andrews, **C. Benitez-Nelson** and R. Belastock (1996). Upper ocean particulate export in the Arabian Sea. *EOS*, **77(46)**, 396.
- Benitez-Nelson, C. R.** and K. O. Buesseler. Phosphorus cycling and export production in the Gulf of Maine: A multi-tracer approach. 1996 Gulf of Maine Ecosystem Dynamics Meeting, New Brunswick, Canada, Sept. 16-20, published program.
- Buesseler, K. O., J. E. Andrews, L. A. Ball, R. A. Belastock, and **C. R. Benitez-Nelson**. Particle export fields in the Arabian Sea derived from ^{234}Th : ^{238}U disequilibria. 1996 AGU Ocean Sciences meeting, San Diego, CA, Feb. 12-16, published program, p. OS23.
- Buesseler, K. O., S. B. Moran, R. L. Edwards, J. A. Hoff, M. C. Hartman, J. E. Andrews, R. A. Belastock, and **C. R. Benitez** (1994). Residence time of colloids and particles along the shelf and slope of the NE USA derived from thorium isotopes. *EOS*, **75(44)**, 311.
- Benitez, C.** and K. O. Buesseler (1991). Determination of the sedimentation rate in the Black Sea over the last century using radionuclides. *EOS*, **72(51)**, 27.

INVITED PAPERS, SEMINARS, SYMPOSIA, and WORKSHOPS:

- Invited Seminar, Understanding sinking particle flux and composition in coastal marine systems, RSMAS Seminar Series, Miami, Florida, October, 2025
- Invited Seminar, Improving faculty and student retention of historically underrepresented groups through curating a new academic culture VIMS Seminar Series, Gloucester Point, Virginia, Feb 2025
- Invited Speaker, Curating a new culture in the academic workplace (Invited) AGU Winter Meeting, Washington D.C., December, 2024
- Invited Speaker, Eastern Pacific Ocean Conference, Fireside Chat, Lake Tahoe, CA, Sept 2023.
- Session organizer and discussion leader, Gordon Research Conference in Chemical Oceanography. Late Breaking Topics. GRC, New Hampshire, July 2023
- Invited Seminar, Using Elemental Composition and Stoichiometry to Explore Marine Biogeochemical Cycles, North Carolina State University, March 2021
- Invited Seminar, Using Elemental Composition and Stoichiometry to Explore Marine Biogeochemical Cycles, Rutgers University, February 2021
- Key Note Address, Using Elemental Composition and Stoichiometry to Explore Marine Biogeochemical Cycles, The Fifth Xiamen Symposium on Marine Environmental Sciences, Xiamen, China. Jan 11-14, 2021
- Invited Seminar, Using Elemental Composition and Stoichiometry to Explore Marine Biogeochemical Cycles, Bromery Lecture, California Institute of Technology, November 2020
- Invited Seminar, Using Elemental Composition and Stoichiometry to Explore Marine Biogeochemical Cycles, Bromery Lecture, Johns Hopkin University, October, 2020
- Invited Speaker, H. Burr Steinbach Scholar, MIT/WHOI Joint Program, July 2019 (three seminars over the course of a week)
- Invited Plenary, The building blocks of life: From oceanic to molecular scales and back again, 2018 Ocean Sciences Meeting, February 12 – February 16, Portland, Oregon.
- Invited Seminar, Neurotoxins in the Environment Understanding the Production, Cycling and Fate of Domoic Acid Along the California Coast. University of North Carolina-Wilmington, March 2017
- Invited Seminar, Neurotoxins in the Environment Understanding the Production, Cycling and Fate of Domoic Acid Along the California Coast. University of North Carolina-Charlotte, March 2017
- Invited Seminar, Neurotoxins in the Environment Understanding the Production, Cycling and Fate of Domoic Acid Along the California Coast. Duke Marine Lab, March 2017
- Keynote Speaker Earth: Our radioactive home. Facts versus Misconceptions. Xiamen China, June 2016
- Keynote Speaker, Junior Science and Humanities Symposium. Great Failures in Science. January 2016
- Invited Speaker, “Insights into phosphorus cycling across oxic-anoxic boundaries in marine systems,” Geological Society of American Annual Meeting, Baltimore, MD, November 2015
- Invited Speaker, “Elemental stoichiometry and the composition and flux of suspended and sinking material in a coastal marine ecosystem,” LDEO Colloquium, Columbia University, April 24, 2015.
- Denis and Jean Wiesenburg Distinguished Lecturer in Ocean Science, “Neurotoxins in the Environment. Understanding the cycling and fate of domoic acid in marine systems,” University of Southern Mississippi, April 9, 2015
- Invited Seminar, “Elemental stoichiometry and the composition and flux of suspended and sinking material in a coastal marine ecosystem,” Stennis Space Center and Marine Science University of Southern Mississippi Lecture Series, April 8, 2015
- Invited Seminar, “Navigating your way through a broken pipeline,” ADVANCE Speaker Series, Texas A&M University, Dec. 9, 2014.

Invited Seminar, “Phosphorus Biogeochemistry and Elemental Stoichiometry in Sinking and Suspended Particulate Matter in the Cariaco Basin, Venezuela,” Department Oceanography, Texas A&M University, Dec. 8, 2014.

Invited Seminar, “Phosphorus Biogeochemistry and Elemental Stoichiometry in Sinking and Suspended Particulate Matter in the Cariaco Basin, Venezuela,” Department of Marine, Earth, and Atmospheric Sciences, North Carolina State University, Sept .22, 2014.

2013 USC New Student Convocation, Invited speaker, August 18, 2013

Keynote Speaker, “Starting discussions on climate change” World Association of Zoos and Aquariums annual meeting. Orlando, FL, Oct. 14, 2013.

Invited Seminar, “The Toxin Express, Understanding What controls the magnitude and variability of the downward transport of domoic acid in coastal waters” Marine Science Program, UC Santa Barbara, April 2013.

Invited Seminar, “The Toxin Express, Understanding What controls the magnitude and variability of the downward transport of domoic acid in coastal waters” Department of Earth Science, University of Southern California, April 2013.

Keynote Speaker, “Starting discussions on climate change” Association of Zoos and Aquariums, mid-year annual meeting, Charleston SC, April 9, 2013.

Invited Speaker, “Communicating science to non-scientists,” TEDX Columbia, Columbia, SC January 21, 2013.

Invited Speaker, “Marine Radioactivity” The Accidents at Fukushima Dai-Ichi: Exploring the Impacts of Radiation on the Ocean Conference, Tokyo, Japan, November 2012.

Invited Seminar, “The Toxin Express, Understanding What controls the magnitude and variability of the downward transport of domoic acid in coastal waters” Marine Sciences Department, University of North Carolina-Chapel Hill, October 2012.

Invited Seminar, “Understanding the Toxin Express, Rapid Downward Transport of Domoic Acid in Coastal Waters” School of Chemistry, University of KwaZulu-Natal, Durban, South Africa, November 2011.

Invited Speaker, “Phosphorus biogeochemistry, what have we learned and where do we need to go in the future.” Gordon Conference, Chemical Oceanography, August 2011, Andover, NH

Invited Speaker, “I want to grow up to be a” USC TRIO McNair Scholars Program Luncheon, Columbia, SC 2011.

Invited Speaker, “ The Ocean Twilight Zone.” OCB Scoping Workshop on GBF-OOI, May 23, 2011, Woods Hole, MA.

MEL Distinguished Visiting Fellow, “Phosphorus Cycling in Marine Systems,” State Key Laboratory of Marine and Environmental Science, Xiamen University, December 2010.

MEL Distinguished Visiting Fellow, “Fate and Transport of the Neurotoxin Domoic Acid to Depth,” State Key Laboratory of Marine and Environmental Science, Xiamen University, December 2010.

MEL Distinguished Visiting Fellow, “Nitrogen Fixation and its Potential Role in Particle Export,” State Key Laboratory of Marine and Environmental Science, Xiamen University, December 2010.

Invited Speaker, “When I grow up I want to be a ...”, USC Last Lecture Series, November 2010, Columbia, SC.

Invited Speaker, “Life after Graduate School, ” Dissertations in Chemical Oceanography (DISCO XXII), sponsored by the National Science Foundation, October 2010, Honolulu, HI.

Invited Speaker, “Dangers of the deep: Possible long-term impacts of harmful algal blooms, “ National Geographic Explorer’s Club, September 2010, Columbia, SC.

Invited Speaker, “I want to grow up to be a Marine Scientist”, College of Arts & Sciences New Student Convocation, August 2010, Columbia, SC.

Invited Seminar, “Understanding the Toxin Express: A Historical Record of Rapid Downward Transport of Domoic Acid in Coastal Waters,” University of Texas, February 2010, Austin, Texas.

Invited Speaker, joint with Ken Buesseler, “What goes up must come down... but when or where?” 2009 AGU Chapman Conference on the Biological Pump in the Oceans. September 2009, Brockenhurst, Hampshire, England.

Invited Seminar, “The role of mesoscale eddies on particle export” Institut de Ciències del Mar, CSIC, July 2009 Barcelona, Spain.

Invited Seminar, “Recent advances in understanding the biogeochemical cycling of phosphorus in the oceans,” National Oceanography Centre, University of Southampton, March 2009 Southampton, England.

Invited Seminar, “The biogeochemical cycling of phosphorus in modern day marine systems”, Ocean and Climate Processes Research Group (GEPOC) Seminar, Universitat Autònoma de Barcelona, February 2009 Barcelona, Spain.

Invited Tutorial, “Short-lived radionuclides as tracers of particle flux in the oceans: A look towards the future.” ASLO Winter Meeting, January 2009, Nice, France.

Invited Speaker, “Climate Change and the Oceans,” USC’s Citizen’s School of the Environment, April 2008, USC, Columbia, SC.

Invited Speaker, “Transport and fate of the marine biotoxin, domoic acid, in the Santa Barbara Basin, California,” Regional Workshop for Harmful Algal Blooms in California Coastal Waters, April 2008, Costa Mesa, CA.

Invited Speaker, “Phosphorus Cycling in the Coastal Zone,” Distinguished Role Model Lecture, Bodega Marine Laboratory, August 2007, Bodega Bay, CA.

Invited Seminar, “Water Column Phosphorus Cycling in Continental Margins: Insights from sequential extraction and ³¹P NMR,” Duke University, February 2007, Durham, NC.

Invited Seminar, “Phosphorus Cycling in a Continental Margin Ecosystem,” University of Georgia, November 2006, Athens, GA.

Invited Speaker, “Particulate phosphorus dynamics in coastal environments,” Society for Advancement of Chicanos and Native Americans in Science (SACNAS) National Conference, October 2006, Tampa, FL.

Invited Seminar, “Particulate Phosphorus Cycling in Continental Margins,” University of Vermont, September 2006, Burlington, VT.

Invited Speaker, Doctoral and Master’s Commencement Address, May 2006, USC.

Invited Seminar, “Open Ocean Eddies Bring Life to the Desert,” Eastern Carolina University, April 2006, Greenville, NC.

Invited Seminar, “Open Ocean Eddies Bring Life to the Desert,” Louisiana State University, March 2006, Baton Rouge, LA.

Invited Seminar, “Eddy Biogeochemistry in the lee of the Hawaiian Islands,” Skidaway Institute of Oceanography, March 2006, Savannah, GA.

Invited Lecture, “The Day After Tomorrow: Global Climate Change over the next century?” Last Lecture Series, Carolina Scholars Association, Oct. 2005, USC.

Invited Seminar, “Phosphorus biogeochemistry and export in marine systems,” Hall-Bonner Lecture Series (Joint between Hampton University, Virginia Institute of Marine Sciences, and Old Dominion University) April 2005, Hampton, VA.

Invited Speaker, “The ocean’s role in global climate change,” AGU Lecturer, National Science Teacher’s Association, April 2004, Atlanta GA.

Invited Speaker, “Nutrient Cycling in the Ocean: Why is it important?,” Celebrating women in science in SC, University of South Carolina, March 2004, Columbia, SC.

Invited Seminar, “Particulate Phosphorus cycling across and oxic/anoxic interface: Implications for past, present, and future changes in nutrient limitation,” Stanford University, March 2004, Stanford, CA.

Invited Seminar, “Particulate Phosphorus cycling across and oxic/anoxic interface: Implications for past, present, and future changes in nutrient limitation,” USGS Water Resources Division, March 2004, Menlo Park, CA.

Invited Seminar, “Phosphorus speciation in the Cariaco Basin,” Fort Johnson Seminar Series, January 2004, Charleston SC.

Invited Speaker, “Moving beyond phosphate: Are plankton consuming (and sinking) more than we think?” Gordon Conference, Chemical Oceanography, August 2003, Tilton NH

Invited Seminar, “A reinterpretation of Carbon and phosphorus cycling in the open ocean”, MIT May 2003, Boston MA.

Invited Seminar, “Are open oceans really biological deserts? A new perspective on phosphorus and carbon cycling in the North Pacific”, University of Connecticut, March 2003, Groton, CT

Invited Seminar, “Atmospheric Deposition of Phosphorus and Trace Metals”, Harvard University, November 2002, Boston, MA

Invited Participant, Coastal ocean processes and observatories: Advancing coastal research, May, 2002 Savannah, GA.

Invited Participant, NOAA National Exploration and Education Workshop, September, 2002 Charleston, SC.

Invited Profile, Minorities in Aquatic Sciences, 2002, <http://www.aslo.org/mas/profiles.html>

Invited Speaker, “‘Export Production’ at Station ALOHA,” 2002 BATS/HOT Time-series Summit, April 2002, Vancouver BC.

Invited Speaker, “Phosphorus cycling in the North Pacific Gyre,” 2000 AGU Fall Meeting, San Diego, CA

Invited Seminar, “Atmospheric cycling and atmospheric deposition of P,” Princeton University, October 2000, Princeton, NJ

Invited Speaker, “Phosphorus cycling in a coastal ecosystem using short-lived radionuclides,” Dissertations Symposium on Chemical Oceanography (DISCO XV), May 1999, Honolulu, Hawaii.

Invited Seminar, “Atmospheric mixing and upper-ocean phosphorus cycling using short-lived radioisotopes,” University of Washington, April 1999, Seattle, Washington.

Invited poster, “Phosphorus cycling in the Gulf of Maine: A Multi-tracer Approach” EPA STAR Symposium, June 1998, Arlington, Virginia.

PROFESSIONAL ACTIVITIES:

2024 – present Chair, AGU Ewing Medal Committee

2023 – present [Ocean Research Advisory Panel \(ORAP\)](#) advises the Ocean Policy Committee, Congressionally mandated, Secretary-level interagency body to coordinate ocean science and technology and management policy across the federal government.

2022 – present Scientific Advisory Board, [Hypothesis Fund](#)

2021 – present Chair, [Ocean Studies Board](#), National Academies of Sciences, Engineering, and Medicine

2021 – present National Academy of Sciences Committee, Ocean Decade Committee

2021 – 2024 Associate Editor, *JGR-Oceans*

2021 – 2023 Center for Chemical Currencies of a Microbial Planet (C-CoMP), External Advisory Board

2020 – 2021 National Academy of Sciences Committee, Advancing a Systems Approach to Studying the Earth: A Strategy for the National Science Foundation

2018 – present Editorial Committee, *Oceanography Magazine*

2017 – 2022 Chair, International SCOR Committee on Capacity Building.

2017 – 2020 AGU Ocean Sciences, Secretary Marine Geochemistry Elected

2016 – 2022 Member, International SCOR Committee on Capacity Building.

2015 – present Senior Editor, *Limnology & Oceanography Letters*

2015 – 2019 Board Member, Association of Public and Land-grant Universities’ Board on Oceans, Atmosphere, and Climate

2016 – 2019 Member, U.S. National Committee for the Scientific Committee on Oceanic Research (SCOR)

2015 – 2019 Editorial Committee, *Annual Review of Marine Science*

- 2015 – 2018 Member, SCOR Working Group 146 Radioactivity in the Ocean, 5 Decades Later (RiO5)
- 2014 Chair, Committee of Visitors review the Division of Ocean Sciences, Integrative Programs Section: Oceanographic Centers, Facilities, and Equipment programs
- 2013 and 2014 NSF GRF Review Panel
- 2013 – 2019 Board Member, Ocean Studies Board, National Academies of Sciences, Engineering, and Medicine
- 2012 – 2015 At Large Board member (elected), **Association for the Sciences of Limnology and Oceanography (ASLO)**
- 2011 – 2013 U.S. Carbon Cycle Scientific Steering Group
- 2009 – 2012 Science Advisory Board (SAB) Environmental Protection Agency
- 2008 – 2011 National Science Foundation, Advisory Committee to the Geosciences (AC-GEO)
- 2008 – 2015 Associate Editor, *Limnology and Oceanography Methods*
- 2008 – 2011 Co-Chair, 2011 ASLO Winter Meeting (1900 attendees) San Juan, Puerto Rico, Feb 13th-19th, 2011.
- 2007 – 2010 Council Member (elected), Chemical Oceanography Representative. *Oceanography Society*
- 2010 Session Chair, Nitrogen Cycling Near Oxygen Minima Zones: Linking Observations to Global Models of Nitrogen Fixation in the Anthropocene, 2010 Ocean Sciences Meeting, Portland Oregon
- 2007 Session Chair, Conundrums and Controversies: What contributes to the vertical flux of carbon in aquatic ecosystems? ASLO Winter Meeting Santa Fe, NM
- 2006 Session Chair, Eddies and Fronts: Mesoscale Physical-Biological-Biogeochemical Linkages in the Open Ocean, ASLO/AGU/TOS Ocean Sciences Meeting, Honolulu HI
- 2006 – 2017 Associate Editor, *Marine Chemistry*
- 2006 – 2007 ASLO 2007 Winter Meeting Organization Committee
- 2006 Committee of Visitors, NSF Geoscience Directorate Ocean Sciences Division.
- 2005 Guest Editor for Marine Chemistry. Includes papers from FATE workshop
- 2004 Chair and Organizer, Future Applications of ²³⁴Th in Aquatic Ecosystems (International Workshop with 45 participants), August 16-19th, Woods Hole, MA
- 2004 Session Chair, General Contributions in Oceanography, AGU Fall Meeting,
- 2002 Session Chair, Marine Biogeochemistry, AGU Fall Meeting

Panel Service and Reviewer of numerous proposals each year from the Australia Research Council, NSF (Ocean Division, Hydrology, CAREER, ADVANCE, International Programs), NASA, NOAA, NERC, Science Foundation of Ireland.

Reviewer of manuscripts for Biogeosciences, Continental Shelf Research, Deep-Sea Research I & II, Earth and Planetary Science Letters, Environmental Science & Technology, Journal of Geophysical Research –atmospheres & -oceans, Geochimica et Cosmochimica Acta, Geophysical Research Letters, Global Biogeochemical Cycles, Journal of Marine Research, Limnology and Oceanography, Limnology and Oceanography-Methods, Marine Chemistry, Nature, Nature Geoscience, Science.

TEACHING, STUDENT ADVISING, and OUTREACH & SERVICE at USC:

**Note – Due to my current administrative load, I no longer regularly teach courses in the SEOE

Even Years: Chemical Oceanography MSCI/GEOL 782, *Required Graduate Core Course*
 Introduction to Oceanography MSCI 101 Honors, *Required Undergraduate Core Course*

Odd Years: Environmental Radiochemistry MSCI/GEOL 524, *Undergraduate Major Credit Course – developed by CBN*
 Introduction to Oceanography MSCI 101 Non-Honors, *Required Undergraduate Core Course – developed by CBN*

Undergraduate Research Mentor: I have mentored over 100 undergraduates in my laboratory

Thesis Advisor:

Lauren O’Neill, M.S. USC Marine Science Program 2004	Professor, College of New Jersey
Melissa Ranhofer, M.S. USC Dept. of Geological Sciences 2005	Lecturer, Furman University
Kanchan Maiti, Ph.D. USC Dept. of Geological Sciences 2007	Professor, LSU
Gabrielle Lyons, M.S. USC Dept. of Geological Sciences 2008	Environmental Scientist, FAMU
Suzanne Dubois, M.S. USC Dept. of Geological Sciences 2008	Research Scientist, 3M Corporation
Emily Sekula-Wood, Ph.D. USC, Dept of Earth & Ocean Sciences, 2010	Research Scientist, Exxon-Mobil, Houston TX
Chris Burrell, M.S. USC Dept. of Earth & Ocean Sciences, 2011	Principal chemist for Ecolab in the energy service division at Nalco Champion, Houston TX
Sharmila Pal, M.S. USC Marine Science Program, 2012.	Instructor, Seattle Community College.
Annie Opseth Fosso, M.S. USC Marine Science Program, 2014.	Environmental Chemist at Badger Technical Services
Meryssa Piper, M.S. USC Marine Science Program, 2015.	Teaching Professor, Coastal Carolina, University
Viena Puigcorbe, Ph.D. Universitat Autònoma Barcelona, Spain (Joint with Dr. Pere Masque).	Associate Scientist at ICM-CSIC
William Schroer, M.S. USC Geological Sciences. 2018	Assistant Research Professor, Johns Hopkins University
Doug Bell, Ph.D., USC Marine Science Program, 2018	Senior Technical Advisor, Chesapeake Bay
Blaire Umhau, Ph.D. USC Marine Science Program, 2019	Undergraduate Director/Teaching Faculty at RSMAS
Caitlyn Sarno, M.S. USC Marine Sciences. 2019	Phillips Exeter Academy
Kelly McCabe, M.S. USC Marines Sciences. 2020	Biogeochemistry Lab Analyst, CILGR, University of Michigan.
Curtis Szewczyk, M.S. USC Marines Sciences. 2022	Biological Scientist at South Florida Water Management District
Heather Kish, M.S. USC Marines Sciences. 2021	Environmental Scientist at Anchor QEA

K. Gabi Faton, MS USC Geology. 2024	Mosaic, Analytical Labs
Gwen Hopper, PhD USC Chemistry. 2025	SC DES, Radiation Division
Isaac Miller, PhD USC Geological Sciences.	In progress
Victoria Ferri, MS USC Geological Sciences	In progress
Kaitlin Beth Lease, MS USC Marine Science.	In progress
Sydney Staines, MS USC Marine Science.	In progress

Postdoctoral Advisor:

Elisabet Verdeny, Jan 2009 to Nov. 2010	Instructor at the Universitat Autònoma de Barcelona
Clarissa Anderson, Oct. 2009 to Dec. 2010	Executive Director at the Southern California Coastal Ocean Observing System (SCCOOS)
Catherine Davis, May 2018 to May 2020	Assistant Professor at NC State
Wokil Bam (joint with WHOI), May 2023-December 2024	Research Scientist at Stennis

UNIVERSITY SERVICE (As faculty, not as Senior Associate Dean):

2024 - current	USC Space Committee
2023 - current	USC Conflict of Interest Committee, VPR
2023 - 2025	Provost Advisory Committee on Interdisciplinary Studies
2023	Search Committee Chair, Director Search School of Journalism and Mass Communications
2021 - 2022	USC Strategic Planning Committee
2017 -2018	Chemical Oceanography Search, USC
2017 -2018	Presidential Excellence Initiative Committee, USC
2017	Chair, SEOE DBER Faculty Search
2016 – 2017	COVE, College of Arts & Sciences, USC
2016 – 2017	PFAC Advisory Committee, SEOE
2015 – 2016	College of Arts & Sciences Dean Search Committee, USC
2015 – 2016	Chair, Tenure and Promotion Committee, EOS, USC
2014 – 2017	Member, Undergraduate Committee, Marine Science
2014 – 2016	SEOE Tenure and Promotion Development Committee, USC
2013 – 2015	Member, College of Arts & Sciences Academic Planning Committee, USC
2012 – 2015	Vice President for Research, Breakthrough Awards Committee, USC
2012 – 2019	McNair Trio Program Mentor, USC
2012 – 2019	Honors College Faculty Fellow/Advisor, USC
2012	Director, School of the Earth, Ocean, and Environment, Search Committee, USC
2011 – 2013	Internal Research Advisory Board, Vice President for Research, USC
2011	Vice President for Research Search Committee, USC
2010 – 2013	Director, Marine Science Program, USC
2010	College of Arts and Sciences Associate Dean Search Committee, USC
2009 – 2010	Chair, Faculty Advisory Committee, School of Earth, Ocean, and Environment, USC
2009 – 2022	Hollings Scholarship Advisor, USC
2006 – 2014	UDALL Scholarship Committee, USC (Chair 2007-2008)
2005 – 2008	Undergraduate Director, Marine Science Program, USC
2004 – 2012	National Society of Collegiate Scholars, USC Faculty Advisor
2003 – 2010	S.C. Governor School Mentor (on sabbatical Fall 2008- Sp. 2009)
2002 – 2018	Team Leader and Organizer, ScienceQuest
2004 – 2008	Academic Responsibilities Committee, USCIs

- 2003 – 2008 MSPHD’s Mentor (National program to increase minority M.S. and Ph.D. participation in Earth Science)
- 2002 – 2008 Women’s Soccer Club, Faculty Advisor
- 2002 – 2007 Upward Bound Mentor (underrepresented high schooler works in my lab for a few weeks in the summer)
- 2002 – 2003 SCAMP undergraduate research advisor (South Carolina Alliance for Minority Participation): Tiffany Hall (2002 Outstanding Researcher), Susan Morvey (2003)
- 2000 & 2001 Head Judge, Pacific High School Science Symposium