

CURRICULUM VITAE

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DEGREES AND ADVANCED STUDY:

B.A. Dartmouth College, Ecology & Evolutionary Biology, *cum laude*, 1999

M.S. Stanford University, Environmental Engineering and Science, 2004

Ph.D. Stanford University, Environmental Engineering and Science, 2008

POSITIONS HELD:

Research Assistant Professor, University of Maryland Center for Environmental Science, Horn Point Laboratory, Cambridge, MD, May 2011 - present

Postdoctoral Scholar, Woods Hole Oceanographic Institution, Marine Chemistry and Geochemistry, Dec 2008 - May 2011

Postdoctoral Researcher, Stanford University, Environmental Earth System Science, May 2008 – Dec 2008

Graduate Research Assistant, Stanford University, Civil and Environmental Engineering, 2003 – 2008

Environmental Consultant, Environmental and Occupational Risk Management, Inc., 2000 - 2003

GRADUATE COURSES TAUGHT:

Aquatic Microbial Ecology (MEES 698A), *lecturer* (UMCES)

Integrating Microbial Ecology and Geochemistry (MEES 608), *Instructor* (UMCES)

STUDENTS ADVISED:

None

PEER-REVIEWED PUBLICATIONS:

2001 **Santoro, A.E.**, Lombardero, M.J., Ayres, M.P., and J.J. Ruell. Interactions between fire and bark beetles in an old growth pine forest. *Forest Ecology & Management* 144: 245-254.

2005 Francis, C.A., Roberts, K.J., Beman, J.M., **Santoro, A.E.**, and B.B. Oakley. Ubiquity and diversity of ammonia-oxidizing archaea in water columns and sediments of the ocean. *Proceedings of the National Academy of Sciences* 102: 14683-14688.

2006 **Santoro, A.E.**, Boehm, A.B., and C.A. Francis. Denitrifier community composition across a nitrate and salinity gradient in a coastal aquifer. *Applied and Environmental Microbiology*. 72: 2102-2109.

- 2007 Yamahara, K.M., Layton, B.A., **Santoro, A.E.**, and A.B. Boehm. Beach sands along the California coast are diffuse sources of fecal bacteria to coastal waters. *Environmental Science & Technology* 41: 4515-4521.
- Santoro, A.E.** and A.B. Boehm. Frequent occurrence of the human-specific *Bacteroides* molecular marker at an open coast beach: Relationship to waves, tides, and traditional indicators. *Environmental Microbiology* 9(8): 2038.
- 2008 **Santoro, A.E.**, Francis, C.A., de Sieyes, N.R., and A.B. Boehm. Shifts in the relative abundance of ammonia-oxidizing bacteria and archaea across physicochemical gradients in a subterranean estuary. *Environmental Microbiology* 10(4): 1068-1079.
- 2010 **Santoro, A.E.** Microbial nitrogen cycling at the saltwater-freshwater interface. *Hydrogeology Journal* 18: 187-202. doi: 10.1007/s10040-009-0526-z.
- Santoro, A.E.**, Nidzieko, N.J., van Dijken, G.L., Arrigo, K.R., and A.B. Boehm. Contrasting spring and summer phytoplankton dynamics in the nearshore Southern California Bight. *Limnology and Oceanography* 55: 264-278.
- Santoro, A.E.**, Casciotti, K.L., and C.A. Francis. Activity, abundance, and diversity of nitrifying archaea and bacteria in the central California Current. *Environmental Microbiology* 12: 1989-2006.
- Monismith, S.G., Davis, K.A., Shellenbarger, G.G., Hench, J.L., Nidzieko, N.J., **Santoro, A.E.**, Reidenbach, M.A., Rosman, J.H., Holtzman, R., Martens, C.S., Lindquist, N.L., Southwell, M.W., and A. Genin. Flow effects on benthic grazing on phytoplankton by a Caribbean reef. *Limnology and Oceanography* 55: 1881-1892.
- Griffen, B.D., Spooner, D., Spivak, A.C., Kramer, A.M., **Santoro, A.E.**, and N.E. Kelly. Moving species redundancy towards a more predictive framework. p. 30-46. In P.F. Kemp, ed., *EcoDAS VIII Proceedings*.
- Larsen, L., Moseman, S., **Santoro, A.E.**, Hopfensperger, K, and A. Burgin. A complex-systems approach to predicting effects of sea level rise and nitrogen loading on nitrogen cycling in coastal wetland ecosystems. p. 67-92. In P.F. Kemp, ed., *EcoDAS VIII Proceedings*.
- 2011 Casciotti, K.L., Buchwald, C., **Santoro, A.E.**, and C.F. Frame. Assessment of nitrogen and oxygen isotopic fractionation during nitrification and its expression in the marine environment. *Methods in Enzymology* 486: 253-280.
- Santoro, A.E.**, Buchwald, C., McIlvin, M.R., and K.L. Casciotti. Isotopic composition of N₂O produced by marine ammonia-oxidizing archaea. *Science* 333: 1282-1285.
- Santoro, A.E.** and K.L. Casciotti. Enrichment and characterization of ammonia-oxidizing archaea from the open ocean: Phylogeny, physiology, and stable isotope fractionation. *ISME Journal* 5: 1796-1808. doi: 10.1038/ismej.2011.58
- 2012 Wong, S.H.C, **Santoro, A.E.**, Nidzieko, N.J., Hench, J.L. and A.B. Boehm. Coupled physical, chemical, and microbiological measurements suggest a connection between internal waves and surf zone water quality in the Southern California Bight. *Continental Shelf Research* 34: 64-78.
- Buchwald, C., **Santoro, A.E.**, McIlvin, M.R., and K.L. Casciotti. Determining the $\delta^{18}\text{O}$ of nitrification in the ocean from co-culture and field experiments. *Limnology & Oceanography* 57: 1361-1375.