

Joseph K. Roberts Award. 2008. University of Virginia.
2nd Best Oral Presentation. 2007. Coastal and Estuarine Research Federation.
University of Virginia Fellowships. Spring 2005, 2006, 2009 - 2012; Fall 2008, 2011 - 2013
Robert J. Huskey Travel Fellowship. 2011, 2012, 2013. University of Virginia.
Society of Fellows Travel Fellowship. 2010. University of Virginia.
Departmental Distinction in Chemistry. 2004. Albright College.
Biology Department Award. 2004. Albright College.
Chemistry Faculty Award. 2004. Albright College.
NCAA Scholar Athlete. Cross Country, Indoor & Outdoor Track. 2000-2004. Albright College.
Jacob Albright Scholar. 2004. Albright College.
Eagle Scout, Boy Scouts of America. Order of the Arrow, Vigil Honor member.
 American Society of Limnology and Oceanography member

Publications

Long, MH, Berg P, Zieman JC. Tropical seagrass ecosystem metabolism using eddy correlation. **Marine Ecology Progress Series.** (*in Review*)

Long, MH (2013) Ecosystem metabolism in challenging environments with eddy correlation: seagrass beds, coral reefs, and arctic ice sheets. Ph.D. Thesis. University of Virginia.

Long MH, Berg P, De Beer D, Zieman J (2013) In situ coral reef oxygen metabolism: An eddy correlation study. **PloS ONE** 8: e58581.

Berg P, **Long MH,** Huettel M, McGlathery K, Rheuban J, Giblin A, Howarth R, Marion R, Foreman K. (2013) Eddy correlation measurements of oxygen fluxes for permeable sediments exposed to varying current flows. **Limnology and Oceanography** 58: 1329-1343.

Long MH, Rheuban J, Berg P, Zieman JC (2012) A comparison and correction of versatile and economical light loggers to photosynthetically active radiation sensors. **Limnology and Oceanography Methods** 10: 416-424.

Long MH, Berg P, Koopmans D, Rysgaard S, Glud R (2012) Oxygen metabolism and ice melt measured at the water-ice interface by eddy correlation. **Biogeosciences** 9: 1957–1967.

Liao Q, Bootsman HA, Xiao J, Klump JV, Hume A, **Long MH,** Berg P (2009) Development of an in situ Underwater Particle Image Velocimetry (UWPIV) System. **Limnology and Oceanography Methods** 7: 169-184.

Long MH, McGlathery K, Zieman JC, Berg P (2008) The role of organic acid exudates in liberating phosphorus from seagrass-vegetated carbonate sediments. **Limnology and Oceanography** 53: 2616-2626.

Long, MH (2007) Organic acid exudates from seagrasses and phosphorus liberation in carbonate sediments. M.S. Thesis. University of Virginia.

Select Presentations

Long MH, Berg P, De Beer D, Zieman JC. High-resolution metabolic rates of subtropical seagrass beds evaluated with the in situ eddy correlation technique. Woods Hole Oceanographic Institution. **Invited seminar.** June 2013.

- Long MH**, Berg P, Zieman JC, De Beer D, Koopmans, D, Rysgaard S, Glud RN. Ecosystem Metabolism in Challenging Environments with Eddy Correlation: Seagrass Beds, Coral Reefs, and Arctic Ice Sheets. University of Virginia. Seminar. March 2013.
- Long MH**, Berg P, De Beer D, Zieman JC. High-resolution metabolic rates of subtropical seagrass beds evaluated with the in situ eddy correlation technique. Ocean Sciences Meeting, ASLO / AGU/ TOS. Presentation. February 2013.
- Long MH**, Berg P, De Beer D, Zieman JC. In-situ metabolism dynamics of subtropical coral reefs and seagrass beds determined by eddy correlation. Benthic Ecology Meeting. Presentation. March 2012.
- Long MH**, Berg P, De Beer D, Zieman JC. Metabolism of subtropical coral reefs and seagrass beds determined by eddy correlation. Ocean Sciences Meeting, ASLO / AGU/ TOS. Presentation. February 2012. **Awarded: Outstanding Student Presentation.**
- Berg P, **Long MH**, Rheuban J, Koopmans D, Huettel M. Dynamic changes in eddy correlation measurements of benthic oxygen fluxes. Ocean Sciences Meeting, ASLO / AGU/ TOS. Poster. February 2012.
- Long MH**, Berg P, Koopmans D, Rysgaard S, Glud R. Oxygen metabolism and ice melt measured at the water-ice interface by eddy correlation. 28th annual Envirodays. University of Virginia. Presentation. January 2012. **Awarded: Best Oral Presentation.**
- Long MH**, Berg P, McGlathery K, De Beer D, Zieman JC. Tropical seagrass meadows and coral reefs: An examination of productivity and biogeochemical cycling. Albright College. **Invited seminar.** March 2011.
- Long MH**, Berg P, Rheuban J, Zieman JC. Entire reef system O₂ metabolism measured *in situ* by eddy correlation. Aquatic Sciences Meeting, ASLO. Presentation. February 2011.
- Long MH**, Berg P, Rheuban J, Zieman JC. Entire reef system O₂ metabolism measured *in situ* by eddy correlation. 27th annual Eviroday. University of Virginia. Presentation. January 2011. **Awarded: 2nd Best Oral Presentation.**
- Berg P, **Long MH**, Foreman K, Giblin A, Howarth B, Huettel M, Marino R, McGlathery K, Rheuban J. Eddy correlation measurements of benthic oxygen fluxes for permeable sediments. Ocean Sciences Meeting, ASLO / AGU/ TOS. Presentation. February 2010.
- Long MH**, Berg P, Rheuban J, Zieman JC. Eddy Correlation measurements of benthic oxygen fluxes for coral reefs. Ocean Sciences Meeting, ASLO / AGU/ TOS. Poster. February 2010.
- Berg P, Hume A, Huettel M, **Long MH**, Klump V, Savidge W. Eddy correlation measurements of benthic oxygen exchange: An update on the technique and results from new deployments. Aquatic Sciences Meeting, ASLO. Presentation. January 2009.
- Long MH**, Berg P, Zieman JC. Total ecosystem fluxes of calcium using the underwater eddy correlation technique. 25th annual Eviroday. University of Virginia. Presentation. January 2009. **Awarded: Best Oral Presentation.**
- Long MH**, McGlathery K, Zieman JC, Berg P. The role of organic acid exudates in liberating phosphorus from seagrass-vegetated carbonate sediments. Coastal and Estuarine Research Federation. November 2007. **Awarded: 2nd Best Oral Presentation.**
- Long MH**, Hamann C. Furanocoumarin qualification and quantification in *Heracleum mantegazzium* (Giant Hogweed). Honors Research Symposium. Albright College. Presentation. May 2004.
- Long MH**, Osgood D. Habitat assessment for *Clemmys muhlenbergii* (bog turtle) after vegetation restoration. NCUR conference. Presentation. October 2003.

Collaborators

Last 48 months:

P. Berg (Univ. Virginia), H. Bootsman (Univ. Wisconsin-Milwaukee), M. Charette (Woods Hole Oceanographic Inst.), L. Chipman (Colorado State Univ.), D. De Beer (Max Plank Inst. Marine Microbiology), K. Forman (Marine Biological Lab.), A. Giblin (Marine Biological Lab.), R. Glud (Univ. Arhus), M. Huettel (Florida State Univ.), A. Hume (Univ. Virginia), R. Howarth (Cornell Univ.), J. Klump (Univ. Wisconsin-Milwaukee), D. Koopmans (Univ. Virginia), L. Qiao (Univ. Wisconsin-Milwaukee), R. Marino (Cornell Univ.), W. Martin (Woods Hole Oceanographic Inst.), D. McCorckle (Woods Hole Oceanographic Inst.), K. McGlathery (Univ. Virginia), V. Meyer (Max Plank Inst. Marine Microbiology), J. Rheuban (Woods Hole Oceanographic Inst.), W. Savidge (Skidaway Inst. Oceanography), D. Sogaard (Greenland Inst. Climate Change), S. Rysgaard (Greenland Inst. Climate Change), J. Xiao (Univ. Wisconsin-Milwaukee), J. Ziemann (Univ. Virginia)

Synergistic Activities

- Invited to and attended expert workshops on the application and use of the eddy correlation technique (Association for the Sciences of Limnology and Oceanography, 2011, 2012, 2013)

- Reviewer for: National Science Foundation, Limnology and Oceanography, Ecosystems, Biogeosciences, and Physical Sensors

- Conducted seminars and field instruction on the theory, use, and data analysis of the eddy correlation technique for researchers beginning eddy correlation research from various institutions (Univ. Arhus, Univ. Brisbane, Florida State Univ., Greenland Inst. Climate Change, Max Plank Inst. for Marine Microbiology, Univ. Milwaukee-Wisconsin, Monash Univ.)

- Tutored NCAA Division I athletes in math and sciences, mentored over a dozen undergraduates in the field and the laboratory, taught a number of undergraduate laboratory courses

- Received Outstanding Presentation Awards at the Coastal and Estuarine Research Federation (1x), the Association for the Study of Limnology and Oceanography (1x), and the Annual Enviroday Conference, University of Virginia (3x)