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Education

Ph.D. Marine Bioscience, University of Delaware, Present.

M.S. Biology, University of West Florida, 2008.

B.S. Marine Biology, University of West Florida, 2002.

Employment

Graduate Student, University of Delaware. 2010 - Present.

Lab Technician, Mercury Content of Rainwater, University of West Florida. 2010 - 2010.

Adjunct Professor, University of West Florida. 2009 - 2010.

Teacher, Gulf Breeze High School. 2008 - 2009.

Biologist and Nutrient Analysis, Student Contractor, Environmental Protection Agency, Gulf Ecology Division. 2006 - 2008.

Professional Papers and Presentations:

Papers

Main C.R., Doll, C., Bianco, C., Coyne, K.J., Greenfield, D.I. 2014. Comparison of algal growth phase, macronutrient and light limitation for the quantification of *Heterosigma akashiwo* (Raphidophyceae) using quantitative real-time PCR (qPCR) and sandwich hybridization assay (SHA). *Harmful Algae*. 37:92-99. DOI: [10.1016/j.hal.2014.05.014](https://doi.org/10.1016/j.hal.2014.05.014).

Doll, C., **Main C.R.**, Bianco, C., Coyne, K.J., Greenfield, D.I. 2014. Comparison of sandwich hybridization assay (SHA) and quantitative PCR (QPCR) for the detection and quantification of live and preserved samples of the harmful alga *Heterosigma akashiwo* (Raphidophyceae). *Limnology and Oceanography: Methods*. 12:232-245. DOI: [10.4319/lom.2014.12.232](https://doi.org/10.4319/lom.2014.12.232)

Main, C.R., Salvitti, L.R., Whereat, E. Coyne, K.J. 2014. Associations between phytoplankton species and *Vibrio* in Delaware's inland bays. (*In Prep*)

Presentations

Talks (*Presenter)

Main, Christopher R.*, Coyne, K.J. The *Vibrio*-HAB Connection: Investigating Interactions between *Vibrio* and *Heterosigma akashiwo*. Joint Aquatic Sciences Meeting, Portland, OR. 2014.

Coyne, Kathryn J.*, **Main, C.R.**, Doll, C., Bianco, C., Greenfield, D.I. Effects of growth phase, diel cycle and macronutrient stress on the quantification of *Heterosigma akashiwo* using qPCR and SHA. 7th Symposium on Harmful Algae in the US, Sarasota, FL. 2013.

Greenfield, Dianne I.*, Coyne, K.J., Doll, C., **Main C.R.**, Bianco, C. Comparison of Sandwich Hybridization Assay and Quantitative PCR for HAB Research and Management using the Raphidophyte *Heterosigma akashiwo*. ASLO Aquatic Sciences Meeting, New Orleans, LA. 2013.

Main, Christopher R.*, Salvitti, L.R., Whereat, E., Farestad, M., Coyne, K.J. Investigating Associations between Harmful Algal Bloom Species and *Vibrio* in the Delaware Inland Bays. 15th International Conference on Harmful Algae, Gyeongnam, Republic of Korea. 2012.

Greenfield, Dianne I.*, Coyne, K.J., Doll, C., **Main C.R.**, Bianco, C. Comparative Analyses Of Sandwich Hybridization Assay And Quantitative PCR For The Harmful Raphidophyte *Heterosigma akashiwo*. 15th International Conference on Harmful Algae, Gyeongnam, Republic of Korea. 2012.

Main, Christopher R.*. Detection of the EsV-I virus and species determination for *Ectocarpus*, especially from the northern Gulf of Mexico. Southeastern Phycological Colloquy, Valdosta State University, Valdosta, GA. 2009.

Poster (*Presenter)

Main, Christopher R.*, Coyne, K.J. The *Vibrio*-HAB Connection: Investigating the Influence of Iron on formation of *Vibrio* Biofilms and ROS production by *Heterosigma akashiwo*. 7th Symposium on Harmful Algae in the US, Sarasota, FL. 2013.

Coyne, Kathryn J.*, **Main, C.R.**, Bouchard, J.N., Polson, S.W., Warner, M.E., Transcriptome Profiling of *Heterosigma akashiwo*: Regulation of Gene Expression by Light and Nitrogen Source. 15th International Conference on Harmful Algae, Gyeongnam, Republic of Korea. 2012.

Main, Christopher R.*, Coyne, K.J. The *Vibrio* HABs Connection: Investigating Interactions between Harmful Algal Bloom Species and Pathogenic *Vibrio*. 6th Symposium on Harmful Algae in the US Austin, TX. 2011.

Doll, Cameron*, Greenfield, D., **Main, C.R.**, Coyne, K. J. Determining Factors that Influence Molecular Quantification of the Harmful Raphidophyte *Heterosigma akashiwo* using Sandwich Hybridization Assay (SHA). 6th Symposium on Harmful Algae in the US, Austin, TX. 2011.

Coyne, Kathryn J.*, Salvitti, L., Tilney, C., **Main, C.R.**, Warner, M., Kelly, D., Mangum, A., Ozbay, G. Carbon Acquisition Strategies of the Toxic Dinoflagellate, *Karlodinium veneficum*, under Climate Change Conditions. 6th Symposium on Harmful Algae in the US, Austin, TX. 2011.

Teaching

University of West Florida

MCB 1000L	Fundamentals of Microbiology Lab	BOT 4374L	Plant Development Lab
ZOO 1010L	General Zoology Lab	BOT 4503L	Plant Physiology Lab
BOT 2010L	General Botany Lab	BOT 4734L	Plant Biotechnology Lab
BOT 4404L	Aquatic Botany Lab	PCB 4043L	Ecology Lab
BOT 4406/L	Marine Algae Lecture and Lab		

Gulf Breeze High School

Marine Science	10 - 12th Grades
General Biology	10th Grade

Awards and Scholarships:

Professionalism Award, University of Delaware. 2014.

School of Marine Science and Policy Travel Award, University of Delaware. 2014.

Horshaw Travel Award, Phycological Society of America. 2014.

Okie Fellowship, University of Delaware. 2010 - 2011.

Outstanding Graduate Teaching Assistant of the Year, University of West Florida. 2006.

Graduate Research Assistantship, University of West Florida. 2006.

Pace Graduate Scholarship, University of West Florida. 2004 - 2006.

Volunteer and Outreach:

Science Judge, Chesapeake Bay Bowl (Regional competition of National Ocean Sciences Bowl), 2014.

Ecology Field Trip, Cab Calloway School of the Arts. 2011 - 2013.

Governors School of Delaware, Coordinator. 2014.

Governors School of Delaware. 2011 - 2013.

Sussex County Science Fair, Judge. 2011 - 2014.

Sussex Academy of Arts and Science Fair, Judge. 2011.

Annual West Panhandle Regional Science and Engineering Fair, Judge. 2004 - 2007.

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