

G. CHRISTOPHER SHANK
CURRICULUM VITAE

The University of Texas at Austin
Department of Marine Science
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EDUCATION

Ph.D., Marine Sciences, University of North Carolina Chapel Hill, 2003.
M.S., Marine Sciences, University of North Carolina Chapel Hill, 1993.
B.S., Electrical Engineering, Virginia Tech, 1988.

PROFESSIONAL EXPERIENCE

2015-present Senior Lecturer and Provost Teaching Fellow, Department of Marine Science,
University of Texas at Austin, Austin, TX.
2013-2015 Lecturer, Department of Marine Science & College of Natural Sciences,
University of Texas at Austin, Austin, TX.
2006-2013 Assistant Professor, Department of Marine Science/Marine Science Institute,
University of Texas at Austin, Port Aransas, TX.
2003-2006 National Research Council Research Associate, US EPA NERL, Athens, GA.
2003 Lecturer, University of North Carolina Wilmington, Department of Chemistry.
1995-1999 Research Technician III, University of North Carolina Wilmington Center for
Marine Science Research, Lower Cape Fear River Program.
1995 Technician, LaQue Center for Corrosion Technology, Wrightsville Beach, NC.
1994 Aquatic Biologist, Betz Laboratories, Southport, NC.
1990-1993 Graduate Teaching Assistant and Graduate Research Assistant, University of
North Carolina Chapel Hill, Marine Sciences Department.
1989-1990 Software Systems Engineer, Northern Telecom Inc., Research Triangle Park, NC.

HONORS/AWARDS

2016 Appreciation Award from Services for Students with Disabilities
2015 Provost Teaching Fellowship, The University of Texas at Austin.
2015 College of Natural Sciences Teaching Excellence Award, The University of Texas
at Austin.
2012 US EPA Scientific and Technological Achievement Level III Award for *Marine
Chemistry* publication on photochemistry of mangrove and *Sargassum* organics
2011 University of Texas System Regents' Outstanding Teaching Award
2009 US EPA Scientific and Technological Achievement Level II Award for *Limnology
and Oceanography* publication on hazards of UV for corals.
2008 College of Natural Sciences Teaching Excellence Award, The University of Texas
at Austin.
2003-2006 National Research Council Research Associateship Award. US EPA Athens, GA.

- 2003 Strategic Environmental Research and Development Program (SERDP) Compliance 'Project of the Year' award. SERDP funding to S. Skrabal and R. Kieber (UNCW Dept. of Chemistry and Biochemistry) supported my dissertation.
- 2002 Dissertations Symposium on Chemical Oceanography XVII – selected by committee comprised of NSF, ONR, and NOAA representatives to present paper based on dissertation, Honolulu, HI.
- 2002 National Science Foundation student travel award – attended International Estuarine Biogeochemistry Symposium in Grimstad, Norway.

COURSES TAUGHT

Undergraduate

- UGS 303, Oceans and the Human Experience (UT Signature Course), School of Undergraduate Studies, The University of Texas at Austin, Austin, Texas, Fall 2015.
- MNS 310, Fundamentals of Marine Science, Department of Marine Science, The University of Texas at Austin, Austin, Texas, Fall 2014, Fall 2015.
- MNS 308, Humans and a Changing Ocean, Department of Marine Science, The University of Texas at Austin, Austin, Texas, Summer 2014, Spring 2015, Spring 2016.
- MNS 352, Oceanography, Department of Marine Science, The University of Texas at Austin, Austin, Texas, Spring 2014.
- MNS 348, Training Cruise, Research in Oceanography, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas, Spring 2014, Spring 2015.
- UGS 303, Research Methods, Freshman Research Initiative, College of Natural Sciences, The University of Texas at Austin, Austin, Texas, Fall 2013.
- MNS 320, Marine Ecology, Department of Marine Science, The University of Texas at Austin, Austin, Texas, Fall 2013, Spring 2014, Fall 2014, Spring 2015, Fall 2015, Spring 2016.
- MNS 120L, Marine Ecology Laboratory, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas, Fall 2013.
- MNS 352, Marine Conservation Biology, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas, Summer 2013, Summer 2015.
- MNS 352, Ecosystem Oceanography, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas, Spring 2013, Spring 2014, Spring 2016.
- MNS 354, Marine Environmental Science, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas, Summer 2011.
- MNS 152L, Marine Conservation Biology Lab, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas, Summer 2009.
- MNS 152S, Seminar in Marine Science, Department of Marine Science, The University of Texas at Austin, Port Aransas, Summer 2009.
- MNS 352, Principles of Estuarine Ecology, Department of Marine Science, The University of Texas at Austin, Port Aransas, Summer 2008, Summer 2010, Summer 2012, Summer 2014, Summer 2016.
- MNS 152L, Principles of Estuarine Ecology Lab, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas, Summer 2008, Summer 2010, Summer 2012, Summer 2014.

MNS 307, Introduction to Oceanography, Department of Marine Science, The University of Texas at Austin, Austin, Texas, Spring 2007, Fall 2007, Spring 2009, Spring 2010, Spring 2011, Spring 2012, Fall 2014, Spring 2015.

CHM 103, Chemistry for Everyday Life, Department of Chemistry and Biochemistry, University of North Carolina Wilmington, Wilmington, North Carolina, Spring 2003.

Graduate

MNS 383, Global Climate Change, Department of Marine Science, The University of Texas at Austin, Austin/Port Aransas, Texas, Fall 2009, Fall 2012.

MNS 398T, Supervised Teaching in Marine Science, Department of Marine Science, The University of Texas at Austin, Austin/Port Aransas, Texas, Fall 2008.

MNS 191, Seminar in Marine Science, Department of Marine Science, The University of Texas at Austin, Port Aransas, Texas, Fall 2007.

Additional Teaching Experience

Lecturer, CHM 102 (General Chemistry), University of North Carolina Wilmington, Department of Chemistry and Biochemistry, 2001.

Substitute/Guest Lecturer, CHM 377 (Environmental Chemistry), University of North Carolina Wilmington, Department of Chemistry and Biochemistry, 1999-2003.

Graduate Teaching Assistant, Chemical Oceanography (graduate), University of North Carolina Chapel Hill, Marine Sciences Department, 2002.

Graduate Teaching Assistant, University of North Carolina Chapel Hill, Marine Sciences Department, Introductory Oceanography (undergraduate), Chemical Oceanography (graduate), 1990-1993.

GRADUATE STUDENT SUPERVISION

Current Students

Claire Griffin

Jason Jenkins

Degree Working Towards

Ph.D. candidate (UTMSI) – committee member

M.S. candidate (UTMSI) – committee member

Past Students

Lucia Upchurch

Marcia Baeza

Nathan Johnson

Barrett Fines

Yongseok Hong

Brad Gemmell

Chris Wilson

Jessica Ruiz

John Mohan

Matt Khosh

Qiyuan Liu**

M.S. August 2008 (UTMSI) – committee member

M.S. June 2009 (TAMUK Env. Eng.) – committee member

Ph.D. July 2009 (UT Civil/Env. Eng.) – committee member

M.S. August 2009 (UTMSI) – committee member

Ph.D. November 2009 (UT Civil/Env. Eng.) – committee member

Ph.D. May 2011 (UTMSI) – committee member

Ph.D. December 2011 (UTMSI) – committee member

Ph.D. candidate (TAMUK Env. Eng.) – committee member

Ph.D. August 2015 (UTMSI) – committee member

Ph.D. December 2015 (UTMSI) – committee member

M.S. May 2013 (UTMSI) – advisor

**(UT Outstanding M.S. Thesis Award Winner)

Leslie Patterson

George Adams

Ph.D. candidate (UTMSI) - advisor

M.S. candidate (UTMSI) – advisor

UNDERGRADUATE RESEARCH SUPERVISION

MNS 370, Advisor, The University of Texas at Austin Marine Science Institute, Spring 2013 (Sarah Douglas, Chris Wood)
Mentor, Research Experience for Undergraduates, The University of Texas at Austin Marine Science Institute, Summer 2012. (Nathalie Arnone)
MNS 370, Advisor, The University of Texas at Austin Marine Science Institute, Summer 2011. (Crystal Chaloupka)
MNS 170 Advisor, The University of Texas at Austin Marine Science Institute, Fall 2010, Spring 2011. (Hogan Aydam)
MNS 370 Advisor, The University of Texas at Austin Marine Science Institute, Summer 2010. (Cameron Peyton)
Mentor, Research Experience for Undergraduates, The University of Texas at Austin Marine Science Institute, Summer 2010. (Jeffrey Obelcz)
Honors Thesis Advisor, Coastal Carolina University, Conway, South Carolina, Summer/Fall 2009. (Stephanie Miller)
Mentor, Research Experience for Undergraduates, The University of Texas at Austin Marine Science Institute, Summer 2008. (Stephanie Miller)
MNS 370, 170, Advisor, Mission Aransas National Estuarine Research Reserve intern, The University of Texas at Austin Marine Science Institute, Spring/Summer 2009. (Samantha Myers)
Mentor, Research Experience for Undergraduates, The University of Texas at Austin Marine Science Institute, Summer 2008. (Alexis Boggs)
MNS 370, Advisor, Special studies in Marine Science, Department of Marine Science, The University of Texas at Austin, Austin, Texas, Summer/Fall 2007. (Jennifer Lewis)
Honors Chemistry Advisor, University of North Carolina Wilmington, Department of Chemistry and Biochemistry, Wilmington, North Carolina, Spring 2001.

PROFESSIONAL MEMBERSHIPS

American Chemical Society, American Geophysical Union, American Society of Limnology and Oceanography, Estuarine Research Federation, Gulf Estuarine Research Society

PROFESSIONAL SERVICE

Journal Reviews

Marine Chemistry, Limnology and Oceanography, Environmental Chemistry, Environmental Science and Technology, Science of the Total Environment, Marine Environmental Research, Journal of Atmospheric Chemistry, Aquatic Sciences, Proceedings of the 11th International Coral Reef Symposium, Archives of Environmental Contamination and Toxicology, Biogeochemistry, Environmental Toxicology and Chemistry, Deep Sea Research, Organic Geochemistry, Limnology and Oceanography: Methods, Estuaries and Coasts, Continental Shelf Research, Geochimica et Cosmochimica Acta, Hydrobiologia, Estuarine, Coastal and Shelf Science, Global Biogeochemical Cycles

Proposal Reviews

North Carolina Sea Grant, North Carolina Water Resources Research Institute, American Chemical Society Petroleum Research Fund, National Science Foundation Office of Polar Programs, National Science Foundation GEOTRACES Program, National Science Foundation Oceanography Division – Major Research Instrumentation Program, UT Research Grant program

External Committees and Review Panels

2015 External Review UNCW Department of Chemistry & Biochemistry M.S. Program
2007 CDOM Working Group, Charlotte Harbor National Estuary Program
1996-1997 Lower Cape Fear River Program Technical Committee

Conference Session Chairs

2008 ‘Coral Reefs: Impacts of environmental alterations and climate change on coral biology and biogeochemistry, and links between dissolved organic matter cycling and coral reef ecology.’ Ocean Sciences Meeting, Orlando, Florida.

Department of Marine Science and Marine Science Institute

2014-present Assistant Undergraduate Advisor, Marine and Freshwater Science major
2014-present Marine Science Club faculty advisor
2014-present Organizer, Semester by the Sea Undergraduate Research Symposium
2008-present UTMSI Summer Science Program class instructor, Port Aransas, TX.
2014 Question Developer, KEDT Challenge High School Academic Competition
2013 Member, UTMSI Academic Assessment Committee
2012-2013 Member, UTMSI ASPIRE Grant Committee
2010-2013 Member, UTMSI Marine Operations Committee
2009-2013 Member, UTMSI Dive Safety Committee
2008-2013 Member, UTMSI Faculty Merit Review Committee
2007-2013 Member, UTMSI Oral/Written Candidacy Exam Committees
2011 Chair, UTMSI Doctoral Oral Candidacy Exam Committee
2009 Presentation: “Coral reefs: An SOS call from the tropics.” University of Texas Marine Science Institute public lecture series, Port Aransas, TX.
2008 Presentation to Marine Science Advisory Council, ‘The sun’s influence on water chemistry and dissolved oxygen in coastal Texas waters.’ Port Aransas, TX.
2008-2009 Member, UTMSI Library Committee
2007-2008 Member, UTMSI Promotion and Tenure Committee
2006-2008 Member, UTMSI Graduate Studies Committee
2008 Member, Mission Aransas National Estuarine Research Reserve Graduate Research Assistantship Selection Committee
2006-2008 Member, UTMSI Marine Operations Committee
2007-2008 Member, UTMSI Faculty Search Committee (Fish Ecology position)
2007 Chair, UTMSI Visibility Committee
2007 Member, UTMSI Undergraduate Teaching Committee

College of Natural Sciences

2016 Organizer/Host College of Natural Sciences Professional Development Workshop
2015 Keynote Speaker College of Natural Sciences Career Networking Night

2015-present	College of Natural Sciences 21 st Century Education Advisory Group
2015-present	College of Natural Sciences Scholarship Committee
2015	College of Natural Sciences Career Networking Night Keynote Speaker
2011-present	College of Natural Sciences Research Award Committee
2015	Best of Texas presentation
2014	College of Natural Sciences Family Day
2014	Honors Colloquium Class Teacher

University of Texas

2015-present	UT Teaching Colloquium
2015-present	Provost Teaching Fellows
2015	Freshman Interest Group Discussions Leader
2014-present	UT Reading Round-Up
2014	Campus Conversations on Undergraduate Experience
2013	Freshman Interest Group Discussions Leader
2013	Member, Graduate School FRA Review Committee
2012-2013	Member, Graduate School SRA Review Committee
2010	PBS TV Documentary: Interviewed with Producer Lee Smith of TPWD for water quality issues broadcast 'State of the Gulf'
2010	Presentation: "Coral reefs: An SOS call from the tropics." University of Texas at Austin Seminars for Adult Growth and Enrichment Series, Austin, TX.

Community Outreach

2014-2015	Stiles Middle School Career Night
2007-2010	Judge, Port Aransas Deep Sea Round-up fishing tournament
2006-2009	Trainer/Coach, Padre Soccer League Select Soccer
2003-2006	Coach, Cape Fear Soccer Association/Athens United Soccer Association
1995-1999	Field excursions/lecture sessions on Cape Fear River for area school teachers/community groups

PARTICIPATION IN SCIENTIFIC EXPEDITIONS

2011-2012	<i>R/V MANTA</i> , northern/western Gulf of Mexico shelf waters
2007-2012	<i>R/V PELICAN</i> , Gulf of Mexico Dead Zone
2006-2013	Field research throughout south Texas Bays and Estuaries
2003-2009	<i>R/V LADY LYNNE</i> (Mote Marine Lab), Florida Keys, DOM/optical surveys
1995-2003	<i>R/V CAPE FEAR</i> /other vessels, North Carolina waters, weekly/monthly cruises
1991	<i>R/V CALANUS</i> , Great Bahama Bank, seismic survey
1990-1993	Field research throughout North Carolina Outer Banks

GRANTS & CONTRACTS

The University of Texas at Austin Provost Teaching Fellowship. Professional development for College of Natural Sciences undergraduate students. \$25,000. (Spring 2015-Spring 2017).

The University of Texas at Austin Office of the VP for Research. Environmental factors controlling dissolution of organic carbon from salt marsh sediments. \$6,000. (11/1/10-8/31/11). PI.

Big XII Travel Fellowship. TX Dead Zone dynamics with TAMU. \$1,100 (09/01/10-08/31/11).

Protect Our Reef Grant Program. "Linking coral microbial communities and water column dissolved organic matter, \$40,736. (04/01/08 – 03/31/09). Collaborator (Ritchie) at Mote Marine Laboratory.

Lower Colorado River Authority. "Colorado River flow relationships to bay health: benthic indicators," \$91,000. (01/01/2007 – 08/31/2007). Collaborator (Montagna) at TAMUCC.

UT Summer Research Assignment. "Investigating the Sources and Sinks of methylmercury in coastal environments," \$14,000. (06/1/2007 – 07/31/2007).

Lower Cape Fear River Program. "Organic copper-complexing ligands in the Cape Fear estuary," \$28,000 (dissertation support). 1997-98.

PUBLICATIONS

Peer-Reviewed Journal Articles

- Liu, Q., and G.C. Shank. 2015. Solar radiation-enhanced dissolution of particulate organic matter in Texas estuaries. *Estuaries and Coasts* (doi: 10.1007/s12237-014-9932-0).
- Liu, Z., J. Liu, W.G. Gardner, G.C. Shank, and N.E. Ostrom. 2014. The impact of *Deepwater Horizon* oil spill on petroleum hydrocarbons in surface waters of the northern Gulf of Mexico, *Deep Sea Research II* (doi.org/10.1016/j.dsr2.2014.01.013).
- Miller, S.A., and G.C. Shank. 2013. Influence of severe drought conditions on CDOM dynamics in south Texas coastal waters. *Estuarine, Coastal and Shelf Science* 117, 219-226.
- Bianchi, T.S., F. Garcia-Tigreros, S. Yvon-Lewis, M. Shields, H.J. Mills, D. Butman, C. Osburn, P. Raymond, G.C. Shank, S.F. DiMarco, N. Walker, B. Reese, R. Mullins, A. Quigg, G.R. Aiken, and E.L. Grossman. 2013. Enhanced transfer of terrestrially-derived carbon to the atmosphere in a flooding event. *Geophysical Research Letters* 40 (1), 116-122.
- Shank, G.C., and A. Evans. 2011. Distribution and photoreactivity of chromophoric dissolved organic matter in northern Gulf of Mexico shelf waters. *Continental Shelf Research* 31 (10), 1128-1139, doi:10.1016/j.csr.2011.04.009.
- Shank, G.C., A. Evans, Y. Yamashita, and R. Jaffé. 2011. Solar radiation-enhanced dissolution of particulate organic matter from coastal marine sediments. *Limnology and Oceanography* 56(2), 577-588.
- Shank, G.C., R. Lee, A. Vähätalo, R.G. Zepp, and E. Bartels. 2010. Production of CDOM from mangrove leaf litter and floating *Sargassum* colonies. *Marine Chemistry* 119 172-181, doi 10.1016/j.marchem.2010.02.002
- Shank, G.C., R.G. Zepp, A. Vähätalo, R. Lee, and E. Bartels. 2010. Photobleaching kinetics of chromophoric dissolved organic matter derived from mangrove leaf litter and floating *Sargassum* colonies. *Marine Chemistry* 119:162-171, doi 10.1016/j.marchem.2010.01.003

- Shank, G.C., K.K. Nelson, and P.A. Montagna. 2009. Importance of CDOM distribution and photoreactivity in a shallow Texas estuary. *Estuaries and Coasts* 32(4):661-677. DOI:10.1007/s12237-009-9159-7.
- Zepp, R.G., G.C. Shank, E. Stabenau, K.W. Patterson, M. Cyterski, W. Fisher, E. Bartels, and S. Anderson. 2008. Spatial and temporal variability of solar ultraviolet exposure of coral assemblages in the Florida Keys: Importance of colored dissolved organic matter. *Limnology and Oceanography* 53(5):1909-1922.
- Shank, G.C., R.F. Whitehead, M.L. Smith, S.A. Skrabal, and R.J. Kieber. 2006. Photodegradation of strong Cu-complexing ligands in organic-rich estuarine waters. *Limnology and Oceanography* 51(2):884-892.
- Shank, G.C., R.G. Zepp, R.F. Whitehead, and M.A. Moran. 2005. Variations in the spectral properties of freshwater and estuarine CDOM caused by partitioning onto river and estuarine sediments. *Estuarine, Coastal and Shelf Science* 65(1/2):289-301.
- Avery Jr., G.B., R.J. Kieber, J.D. Willey, G.C. Shank, and R.F. Whitehead. 2004. Impact of hurricanes on the flux of rainwater and Cape Fear River water dissolved organic carbon to Long Bay, southeastern United States. *Global Biogeochemical Cycles* 18(3) GB3015.
- Shank, G.C., S.A. Skrabal, R.F. Whitehead, and R.J. Kieber. 2004. Fluxes of strong Cu-complexing ligands from sediments of an organic-rich estuary. *Estuarine, Coastal and Shelf Science* 60(2):349-358.
- Shank, G.C., S.A. Skrabal, R.F. Whitehead, and R.J. Kieber. 2004. Strong copper complexation in an organic-rich estuary: The importance of allochthonous dissolved organic matter. *Marine Chemistry* 88:21-39.
- Shank, G.C., S.A. Skrabal, R.F. Whitehead, G.B. Avery, Jr., and R.J. Kieber. 2004. River discharge of strong Cu-complexing ligands to South Atlantic Bight waters. *Marine Chemistry* 88:41-51.
- Avery Jr., G.B., J.D. Willey, R.J. Kieber, G.C. Shank, and R.F. Whitehead. 2003. Flux and bioavailability of Cape Fear River and rainwater dissolved organic carbon to Long Bay, Southeastern United States. *Global Biogeochemical Cycles* 17(2):1042-1047.
- Mallin, M.A., S.H. Ensign, M.R. McIver, G.C. Shank, and P.K. Fowler. 2001. Demographic, landscape, and meteorological factors controlling the microbial pollution of coastal waters. *Hydrobiologia* 460:185-193.
- Mallin, M.A., M.H. Posey, G.C. Shank, M.R. McIver, S.H. Ensign, and T.D. Alphin. 1999. Hurricane effects on water quality and benthos in the Cape Fear Watershed: Natural and anthropogenic impacts. *Ecological Applications* 9(1):350-362.
- Mallin, M.A., L.B. Cahoon, M.R. McIver, D.C. Parsons, and G.C. Shank. 1999. Alternation of factors limiting phytoplankton production in the Cape Fear Estuary. *Estuaries* 22:825-836.
- Burkholder, J.M., M.A. Mallin, H.B. Glasgow, Jr., M. Larsen, M.R. McIver, G.C. Shank, N. Deamer-Melia, D.S. Briley, J. Springer, B. Touchette, and E.K. Hannon. 1997. Impacts to a coastal river and estuary from rupture of a large swine waste holding lagoon. *Journal of Environmental Quality* 26:1451-1466.

Mallin, M.A., J.M. Burkholder, M.R. McIver, G.C. Shank, H.B. Glasgow, Jr., B.W. Touchette, and J. Springer. 1997. Comparative effects of poultry and swine waste lagoon spills on the quality of receiving streamwaters. *Journal of Environmental Quality* 26:1622-1631.

Book Chapters/Articles

Shank, G.C. 2015. Diving In: Undersea Ultraviolet Radiation. *In* Investigating Oceanography Volume II. Eds. Sverdrup and Kudela published by McGraw Hill.

Shank, G.C. 2012. Diving In: Undersea Ultraviolet Radiation. *In* Investigating Oceanography textbook. Eds. Sverdrup and Kudela published by McGraw Hill.

Ruiz, J.L., J. Ren, T.C. Vaughan, G.C. Shank, and A. Addo-Mensah. 2011. Bridging antimony knowledge gaps by assessing its behavior in a semi-arid creek. *In* 'Antimony: Characteristics, Compounds and Applications'. Nova Science Publishers, Hauppauge, NY.

Articles in Conference Proceedings

Mallin, M.A., J.M. Burkholder, G.C. Shank, M.R. McIver, and H.B. Glasgow, Jr. 1996. "Effect of animal waste lagoon spills on receiving waters". Solutions: A Technical Conference on Water Quality, Raleigh, NC.

Mallin, M.A., M.R. McIver, G.C. Shank, L.B. Cahoon, and D.C. Parsons. 1996. "Spatial and temporal nutrient patterns in the lower Cape Fear system". (*Invited*) Solutions: A Technical Conference on Water Quality, Raleigh, NC.

Technical Reports

Ritchie, K.B., and G.C. Shank. 2009. Linking coral microbial populations and water column dissolved organic matter. Mote Marine Lab Technical Report No. 1407. Sarasota, FL.

Mallin, M.A., M.H. Posey, M.L. Moer, L.A. Leonard, T.D. Alphin, S.H. Ensign, M.R. McIver, G.C. Shank, and J.F. Merritt. 1999. Environmental assessment of the Lower Cape Fear River System, 1998-1999. CMSR Report No. 99-01. Center for Marine Science Research, University of North Carolina at Wilmington, Wilmington, NC.

Mallin, M.A., M.H. Posey, M.L. Moser, G.C. Shank, M.R. McIver, T.D. Alphin, S.H. Ensign, and J.F. Merritt. 1998. Environmental assessment of the Lower Cape Fear River System, 1997-1998. CMSR Report No. 98-02. Center for Marine Science Research, University of North Carolina at Wilmington, Wilmington, NC.

Mallin, M.A., M.H. Posey, M.L. Moser, G.C. Shank, M.R. McIver, T.D. Alphin, S.H. Ensign, and J.F. Merritt. 1997. Environmental assessment of the Lower Cape Fear River System, 1996-1997. CMSR Report No. 97-01. Center for Marine Science Research, University of North Carolina at Wilmington, Wilmington, NC.

Mallin, M.A., L.B. Cahoon, M.R. McIver, D.C. Parsons, and G.C. Shank. 1997. Nutrient limitation and eutrophication potential in the Cape Fear and New River estuaries. Report #313, Water Resources Research Institute of University of North Carolina, Raleigh, NC.

Mallin, M.A., L.B. Cahoon, M.R. McIver, D.C. Parsons, and G.C. Shank. 1996. Nutrient limitation and eutrophication potential in the Cape Fear and New River Estuaries. Project #70316, Water Resources Research Institute of University of North Carolina, Raleigh, NC.

Mallin, M.A., G.C. Shank, M.R. McIver, and J.F. Merritt. 1996. Water quality in the Lower Cape Fear Watershed, 1995-1996. Center for Marine Science Research, University of North Carolina at Wilmington, Wilmington, NC.

Shank, G.C. and J.P. Petrille. 1994. Control of hydrozoan fouling: A sidestream evaluation and hydrozoan surveillance experiment. Betz Laboratories, Southport, NC.

Popular Articles

Shank, G.C. 2007. *Science and the Sea* article “Partners for Life”

LECTURES

Invited Presentations

Shank, G.C. 2012. Chemical Kinetics. Colorado School of Mines Department of Chemistry and Geochemistry, Golden, CO.

Shank, G.C. 2011. Coral reefs: Global change and local concerns. Tri-Beta National Biological Honors Society Meeting, University of Texas at Austin, Austin, TX.

Shank, G.C. 2011. “Nutrient cycling in estuarine environments: Challenges for developing nutrient criteria in these dynamic coastal habitats.” US EPA Region 6 QA/QC Meeting, Dallas, TX.

Shank, G.C. 2011. “Natural sunscreen protection for corals reefs in the Florida Keys.” University of Texas at Austin TriBeta Biological Sciences Honor Society, Austin, TX.

Shank, G.C. 2011. “Photochemistry of suspended sediments in shallow coastal waters.” Texas A&M University, Department of Oceanography, College Station, TX.

Shank, G.C. 2010. “The influence of solar radiation on aquatic environmental chemistry and coastal water quality.” University of San Diego, Department of Marine Science and Environmental Studies. San Diego, CA.

Shank, G.C. 2009. “The importance of interactions among sediments, metals, and solar radiation in shallow aquatic systems.” Texas A&M Kingsville, Department of Environmental Engineering, Kingsville, TX.

Shank, G.C. 2008. “Influence of solar radiation on metal speciation and organic C cycling.” Texas A&M Kingsville, Department of Environmental Engineering, Kingsville, TX.

Grottoli, A., I. Kuffner, and G.C. Shank. 2008. “Diving Deeper into Coral Health.” Ocean Sciences Meeting Press Conference, Orlando, FL.

Shank, G.C. 2008. “Impacts of Global Change on Coral Reefs.” Presentation to Bridging Disciplines Program, The University of Texas at Austin, Austin, TX.

Shank, G.C. 2007. “Chromophoric Dissolved Organic Matter (CDOM) cycling in the Florida Keys.” UNC Wilmington Department of Chemistry and Biochemistry, Wilmington, NC.

Shank, G.C. 2007. “Toxic metals in coastal waters: A case study investigating copper cycling in a populated coastal environment.” TAMUCC Harte Research Institute, Corpus Christi, TX.

Shank, G.C. 2007. “CDOM 102: General overview of CDOM chemistry and methods of breakdown.” Charlotte Harbor National Estuary Program CDOM workshop, Punta Gorda, FL.

Shank, G.C. 2006. “The importance of CDOM in coastal waters: Case studies in copper geochemistry and coral ecology.” Florida Gulf Coast University, Fort Myers, FL.

- Shank, G.C. 2006. "The importance of CDOM in coastal waters: Case studies in copper geochemistry and coral ecology." Old Dominion University, Department of Chemistry and Biochemistry. Norfolk, VA.
- Shank, G.C. 2006. "The importance of CDOM in coastal waters: Case studies in Cu cycling and coral ecology." University of Texas Marine Science Institute, Port Aransas, TX.
- Shank, G.C. 2005. "UV attenuation in coastal waters: The direct and indirect roles of particles." University of Hawaii, Department of Oceanography, Honolulu, HI.
- Shank, G.C., R.G. Zepp, R.F. Whitehead, and M.A. Moran. 2004. "Impacts of sediment/water partitioning on spectral properties of dissolved organic matter" (poster). National Research Council Associates Programs 50th Anniversary, Washington, DC.
- Shank, G.C. 2004. "Sunlight beneath the surface: Research in marine photochemistry." Coastal Carolina University, Marine Science Department, Conway, SC.
- Shank, G.C. 2002. "Mechanisms controlling the speciation of dissolved copper in marine and estuarine systems." Dissertations Symposium in Chemical Oceanography XVII, Honolulu, HI.
- Shank, G.C. 2001. "Copper speciation in the Cape Fear River." Lower Cape Fear River Advisory Board meeting, Wilmington, NC.

Conference Presentations

- Shank, G.C., Q. Liu, L. Patterson, and P. Kowalczyk. 2012. Influence of flood and drought conditions on dissolved organic matter distribution in northern Gulf of Mexico shelf waters. American Geophysical Union Fall Meeting, San Francisco, CA.
- Liu, Q., and G.C. Shank. 2012. The influence of environmental factors on solar radiation-enhanced dissolution of particulate organic matter from suspended estuarine sediments. Gulf Estuarine Research Society Meeting, Dauphin Island, AL.
- Shank, G.C., Q. Liu, and P. Kowalczyk. 2012. CDOM distribution and photoreactivity in northern Gulf of Mexico shelf waters during summer 2011. Ocean Sciences Meeting, Salt Lake City, UT.
- Liu, Q. and G.C. Shank. 2012. Solar radiation enhanced dissolution of particulate organic matter from resuspended sediments in Nueces Marsh. Texas Bays and Estuaries Meeting, Port Aransas, TX.
- Shank, G.C. 2011. Nutrient cycling in estuarine environments challenges for developing nutrient criteria in these dynamic coastal habitats. US EPA Quality Control Conference, Dallas, TX.
- Shank, G.C., and J.B. Obelcz. 2011. "Sunlight-induced production of dissolved organic matter from resuspended salt marsh sediments." Aquatic Sciences Meeting, San Juan, PR.
- Obelcz, J.B., and Shank, G.C. 2011. "Dissolved organic carbon (DOC) and chromophoric dissolved organic matter (CDOM) cycling within the Nueces Marsh, Corpus Christi, TX. Aquatic Sciences Meeting, San Juan, PR.
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