



Curriculum Vitae January 2013

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Academic Department: Biological and Environmental Sciences

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EDUCATION

Ph.D. – Biology (Aquatic Ecology/Toxicology Emphasis), University of North Texas,
Denton, Texas, 1989

M.S. – Biology (Limnology/Aquatic Ecology Emphasis), Stephen F. Austin State
University, Nacogdoches, Texas, 1984

B.S. – Biology (Wildlife Science Major, Geology Minor), Stephen F. Austin State
University, Nacogdoches, Texas, 1981

TEACHING EXPERIENCE

2012-2013 – Assistant Professor, Department of Biological and Environmental Sciences,
Texas A&M University at Commerce, Commerce TX.

Classes:

Introduction to Environmental Science
Introduction to Environmental Toxicology
Frontiers of Environmental Science
Environmental Monitoring and Waste Management

2010-2012 - Adjunct Faculty and Research Scientist, Waters of East Texas Center,
Division of Environmental Sciences, Arthur Temple College of Forestry, Stephen F. Austin
State University, Nacogdoches, TX.

Classes:

Environmental Risk Assessment
Environmental Law and Policy

PUBLICATIONS

27. Wang, N., Mebane C.A., Kunz, J.L., Ingersoll, C.G., Brumbaugh, W.G., Santore, R.C., Gorsuch, J.W., **Arnold W.R.** 2011. Influence of Dissolved Organic Carbon on Toxicity of Copper to Rainbow Mussel (*Villosa iris*) and Cladoceran (*Ceriodaphnia dubia*) in Acute and Chronic Water Exposures. *Environmental Toxicology and Chemistry* 30:2115-2125.
26. DePalma, S.G.S., **W. R. Arnold**, J.C. McGeer, D.G. Dixon, D.S. Smith. 2011. Protective effects of dissolved organic matter and reduced sulfur on copper toxicity in coastal marine environments *Ecotoxicology and Environmental Safety* 74:230-237.
25. DePalma, S.G.S., **W. R. Arnold**, J.C. McGeer, D.G. Dixon, D.S. Smith. 2011. Variability in Dissolved Organic Matter Fluorescence and Reduced Sulphur Concentration in Coastal Marine and Estuarine Environments. *Applied Geochemistry* 26:394-404.
24. **Arnold, W.R.**, R.L. Diamond, D. S. Smith. 2011. The Acute and Multi-generation Chronic Toxicity of Copper to the Rotifer, *Brachionus plicatilis* ("L" strain) *Archives of Environmental Contamination Toxicology* 60:250-260.
23. **Arnold, W.R.**, R.L. Diamond, D. S. Smith. 2010. The Effects of Salinity, pH, and Dissolved Organic Matter on Acute Copper Toxicity to the rotifer, *Brachionus plicatilis* ("L" strain). *Archives of Environmental Contamination Toxicology* 59:225-234.
21. **Arnold, W.R.**, J. S. Cotsifas, R. S. Ogle, S.G.S. DePalma, D. S. Smith. 2010. A Comparison of the Copper Sensitivity of Six Invertebrate Species in Ambient Saltwater of Varying Dissolved Organic Matter Concentrations. *Environmental Toxicology and Chemistry* 29:311-319.
20. **Arnold, W.R.**, J.S. Cotsifas, D. Scott Smith, S. Le Page, K.M. Gruenthal. 2009. Comparison of the Copper Sensitivity of *Mytilus edulis* and *Mytilus galloprovincialis* in Ambient Saltwater of Varying Dissolved Organic Matter Concentrations: Implications for Determining the Ambient Copper Saltwater Criteria. *Environmental Toxicology* 24:618-628.
19. Wang, N., C.A. Mebane, J.L. Kunz, C.G. Ingersoll, T.W. May, **W.R. Arnold**, R.C. Santore, T. Augspurger, F.J. Dwyer, and M.C. Barnhart. 2009. Evaluation of acute copper toxicity to juvenile freshwater mussels (fatmucket, *Lampsilis siliquoidea*) in natural and reconstituted waters. *Environmental Toxicology and Chemistry* 28:2367-2377.
18. Van Genderen, E., W. Adams, R. Cardwell, P. van Sprang, **W.R. Arnold**, R. Santore, P. Rodriguez. 2008. An evaluation of the bioavailability and aquatic toxicity attributed to ambient copper concentrations in surface waters from several parts of the world. *Integrated Environmental Assessment and Management* 4:416-424.

17. **Arnold, W.R.** and J.S. Cotsifas. 2008. An Assessment of the Application Factor Used to Derive the Saltwater Acute Ambient Water Quality Copper Criterion. *Integrated Environmental Assessment and Management* 4:252-254.
16. Hall, L.W., Jr., B.L. Lewis and **W.R. Arnold**. 2008. The Influence of Salinity and Dissolved Organic Carbon on the Toxicity of Copper to the Estuarine Copepod, *Eurytemora affinis*. *Archives of Environmental Contamination and Toxicology* 54:44-56.
15. **Arnold, W.R.**, J.S. Cotsifas, A.R. Winter, J.S. Klinck, D.S. Smith, and R.C. Playle. 2007. Effects of the Use of Synthetic Sea Salts on Measuring and Modeling Copper Toxicity in Saltwater Toxicity Tests. *Environmental Toxicology and Chemistry* 5:935-943.
14. **Arnold W.R.** and W.J. Warren-Hicks. 2007. Probability-based Estimates of Site-specific Copper Criteria for the Chesapeake Bay, USA. *Integrated Environmental Assessment and Management* 3:101-117.
13. **Arnold W.R.** and W.J. Warren-Hicks. 2007. Assessment of Aquatic Ecological Risk and Site-specific Criteria of Copper in San Francisco Bay, California, USA, *Integrated Environmental Assessment and Management* 3:32-48.
12. **Arnold, W.R.**, J.S. Cotsifas and K. M. Corneillie. 2006. Validation and Update of a Model Used to Predict Copper Toxicity to the Marine Bivalve *Mytilus* sp. *Environmental Toxicology* 1:65-70.
11. **Arnold, W.R.**, R.C. Santore, and J.S. Cotsifas. 2005. Predicting Copper Toxicity in Estuarine and Marine Waters Using the Biotic Ligand Model. *Marine Pollution Bulletin* 50:1634-1640.
10. **Arnold, W.R.** 2005. Estimations of Copper Roof Runoff Rates for the United States of America. *Integrated Environmental Assessment and Management* 1:333-342.
9. Gravenmier, J.J., D.W. Johnston, R.C. Santore, and **W.R. Arnold**. 2005. Acute Toxicity of Copper to the Threespine Stickleback, *Gasterosteus aculeatus*. *Environmental Toxicology* 20:150-159.
8. **Arnold, W.R.** 2005. Effects of Dissolved Organic Carbon on Copper Toxicity: Implications for Saltwater Copper Criteria. *Integrated Environmental Assessment and Management* 1:34-39
7. Gravenmier, J.J., D.W. Johnston, and **W.R. Arnold**. 2005. Acute Toxicity of Vanadium to the Threespine Stickleback, *Gasterosteus aculeatus*. *Environmental Toxicology* 20:18-22.

6. Perkins, C., F. Nadim, and **W.R. Arnold**. 2005. Effects of PVC, Cast Iron, and Concrete Conduit on Concentrations of Copper in Stormwater. *Urban Water Journal* 2:183-191.
5. Woods, R., R. Davi, and **W.R. Arnold**. 2004. An Estimation of the Chronic Toxicity of Vanadium to the Estuarine Mysid, *Americamysis bahia* (Molenock) (Formerly *Mysidopsis bahia*). *Bulletin of Environmental Contamination and Toxicology* 73:635-643.
4. Bielmyer, G.K., J. Tomasso, S.J. Klaine, and **W.R. Arnold**. 2004. Changes in Water Quality After Addition of Sea Salts to Fresh Water: Implications During Toxicity Testing. *Chemosphere* 57:1707-1711.
3. Mancini, E.R., A.E. Steen, G.A. Rausina, D.C.L. Wong, **W.R. Arnold**, F.E. Gostomski, T. Davies, J.R. Hockett, W.A. Stubbefield, K.R. Drottar, T.A. Springer, and P. Errico. 2002. Methyl-Tertiary Butyl Ether Ambient Water Quality Criteria: A Public/Private Partnership, *Environmental Sciences and Technology* 36: 125-129.
2. Rausina, G.A., D.C.L. Wong, **W.R. Arnold**, E.R. Mancini, and A.E. Steen. 2001. Toxicity of Methyl-Tertiary Butyl Ether to Marine Organisms: Ambient Water Quality Criteria Calculation, *Chemosphere* 47:525-534.
1. Wong, D.C.L., **W.R. Arnold**, Rausina G.A., E.R. Mancini, A.E. Steen. 2001. Development of a Freshwater Aquatic Toxicity Database for the Ambient Water Quality Criteria for Methyl-Tertiary Butyl Ether. *Environmental Toxicology and Chemistry* 20:1125-1133.

BOOK:

1. Gorsuch, J.R., **W.R. Arnold**, R.C. Santore, D.S. Smith. 2009. Copper: Environmental Transport, Fate, Effects and Models. Selected Papers from *Environmental Toxicology and Chemistry*, 1983-2007. *Society of Environmental Toxicology and Chemistry*.

BOOK CHAPTERS:

1. Burton, G.A., **W.R. Arnold**, L.W. Ausley, J.A. Black, G.M. DeGraeve, F.A. Faulk, J.F. Heltshe, W.H. Peltier, J.A. Pletl, and J.H. Rodgers, Jr. 1996. Effluent Toxicity Test Variability. In: D.R. Grothe, K.L. Dickson, and D.K. Reed-Judkins, editors, *Whole Effluent Toxicity Testing: An Evaluation of Methods and Prediction of Receiving Systems Impacts*. Society of Environmental Toxicology and Chemistry Press, Pensacola, FL.

SPECIAL PUBLICATIONS:

1. **Arnold, W.R.** and W.J. Konkel. 1999. Impacts of Petroleum Product Marketing Terminals on the Aquatic Environment. *American Petroleum Institute Publication 4673*. American Petroleum Institute, Washington, D.C.