

**Robert D. Doyle, Ph.D.**

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Update 2/2009

## PART I. BASIC INFORMATION

### EDUCATION:

- 1991 Ph.D. Marine, Estuarine, and Environmental Sciences: University of Maryland.  
Dissertation Title: *Primary Production and Nitrogen Cycling Within the Periphyton Community Associated with Emergent Aquatic Macrophytes in an Amazon Floodplain Lake.*
- 1985 M.S. Biology: Baylor University  
Thesis Title: *Phytoplankton Production of Tropical Lake Chapala, Mexico.*
- 1981 B.S. Biology: Baylor University, Waco, TX.

### PROFESSIONAL EXPERIENCE:

- 2005-present Chair, Department of Biology, Baylor University
- 2003-present Director, Center for Reservoir and Aquatic Systems Research (CRASR)
- 2008-present Professor, Baylor University
- 2001-2008 Associate Professor, Baylor University
- 1998-2001 Assistant Professor, University of North Texas.
- 1996-1998 Research Biologist, US Army Corps of Engineers, Waterways Experiment Station, Lewisville Aquatic Ecosystem Research Facility, Lewisville TX.
- 1991-1998 Adjunct Assistant Professor, Un of North Texas, Department of Biological Sciences
- 1993-1996. Research Scientist II, University of North Texas, Institute of Applied Sciences.
- 1991-1993 Research Scientist I, University of North Texas, Institute of Applied Sciences.
- 1986-1991 Graduate Research Assistant, University of Maryland, Marine, Estuarine, Environmental Science Program. .
- 1985-1986 Research Associate, University of Maryland, Amazon Floodplain Research Project.

### CERTIFICATION:

- 1995- present Professional Wetland Scientist, *Society of Wetland Scientists*

### HONORS AND AWARDS:

- 2003 Fellow, Texas Academy of Sciences
- 1997, 1998 Department of the Army, Official Commendation for exceptional performance of duties as Research Biologist.
- 1995 UACE Wetlands Research Program, Commendation for contribution to the WRP,
- 1981 Recipient of the Cornelia M. Smith Award for Outstanding Biology Senior at Baylor University.
- 1981 Graduated *cum laude* from Baylor University.

## PART II. RESEARCH AND PUBLICATIONS

### GRANTS & CONTRACTS

#### Current Direct Funding (Doyle as PI or co-PI)

**Coastal Prairie Freshwater Wetland Function Project**, (TCEQ & Galveston Bay Estuary Program, 2007-2009, \$250,000). R. Doyle and M. Forbes (co-principal investigators). Dr. Forbes is a post-doc in my lab and has developed this funding to develop water quality and flood storage functional assessment models for geographically isolated depressional wetlands along the Texas coastal prairie ecosystem near Houston, TX.

**Gear-Up Waco: Marsh Madness**. Principal investigator of the “Marsh Madness: environmental education module of the overall Gear-Up Waco program, 2006-2012, \$1.16M total over 6 years. Total Gear-Up Waco award of \$12.2M over 6 years to Baylor University (various PI’s).

**Restoration of the lower San Marcos River, TX**. (Cooperative agreement with the USFWS, 2005-2008, \$76,000). R. Doyle is the principal investigator of this project to develop methods for large-scale native aquatic plant restoration of the lower San Marcos river following dredging efforts to remove a nuisance exotic invasive plant species (*Cryptocoryne beckettii*).

**Transition Zone Index Development and Validation Project** (2004-2008, \$615,000 4-year total, funding from TCEQ via BRA- co principal investigator with Bryan Brooks). This grant focuses on developing criteria for identifying and modeling the “transition area” of a reservoir between the inflowing stream and the lake-like lacustrine zone.

#### Current other funding (Doyle as project manager or collaborating investigator)

**Lake Whitney Comprehensive Assessment**, (Project Director for comprehensive evaluation of Lake Whitney for possible use as a drinking water source. Numerous scientists from Baylor’s departments of Biology, Geology, Environmental Studies and the Center for Spatial Research are involved, 2006-2008).

Phase 1a: Physical Limnology (USEPA, \$396,000)

Phase 1b: Biological Assessment (DOE, \$481,000)

Phase 1c: Ambient Toxicity and Contaminant Assessment (USEPA, \$197,000)

**Improving Ammonia and Phosphorus Removal in Subsurface Flow Wetlands**, (TCEQ- Texas On-site Wastewater Treatment Research Council, 2007-2008, \$107,000, collaborator with Joe Yelderman). This project uses pilot scale subsurface flow (SSF) wetlands and soil columns to conduct research that will lead to improvements in nutrient removal from septic tank effluent.

#### Previous (completed) funding at Baylor

**Lake Waco Study, 2002-2005**: (\$1.1 million total to BU, \$152,324 for Doyle, City of Waco via ENSR. Doyle served as overall project manager for Baylor’s funding).

Lake Waco Nitrogen Fixation (FY 02, 03 & 04 total = \$66,337).

Lake Waco Monitoring (FY 03, 04 & 05 total = \$85,987).

**Spatial Patterns in Wetland Nutrient Biogeochemistry: Implications for Ecosystem Functions**. Texas Agriculture Extension Station, Water Resources Institute, \$5,000. J.T. Scott & R. Doyle.

**Baylor Experimental Aquatic Research support grant**. Altria Group, Inc. – 2004 Environment/Water Conservation. \$35,000. 2005-2006. R. S. King, B. W. Brooks, R. D. Doyle.

**Lake Cypress Springs Herbivorous Insect Evaluation** (\$6,000 Franklin County, TX)

**Enhancement of 3km Segment of San Marcos- 2003-04** (\$24,284, USFWS Section 6 via TPWD)

This grant provides partial support for our second year restoration efforts on the San Marcos River, TX. which includes efforts to eradicate an exotic aquatic plant and re-establish desirable native vegetation.

***Cryptocoryne beckettii* control in the San Marcos River- Phase I, 2002-2003.** (\$25,000-USFWS).

A cooperative agreement has been established with the USFWS for on-going research and management efforts on the San Marcos River. The first phase of this cooperative agreement was funded at \$25,000. This funding continued a fruitful and long-term cooperative agreement. In the past the USFWS has funded me for about \$350,000 of research on the San Marcos. Additional funds followed this grant (see above).

**Evaluation of the peroxidase enzyme assay with respect to insect herbivory on *Hydrilla verticillata*** (2001-02, \$5,825-Baylor URC).

1998-2001 Funding while a tenure-track faculty at UNT

Impacts of *Hydrellia pakistanae* on plant competitive interactions -COE Waterways Experiment Station \$20,000.

Impacts of *Hydrellia pakistanae* on *Hydrilla verticillata* -COE Waterways Experiment Station \$33,081.

Assessment of Factors Influencing Texas Wildrice (*Zizania Texana*) Sexual and Asexual Reproduction , Edwards Aquifer Authority (Co-PI with P. Power for grant received by USFWS-NFH), \$63,060.

Development of Water Quality Monitoring System for Lake Texoma, Co-investigator with Dickson, Waller, Atkinson - US Army Corps of Engineers via Wendy Lopez and Associates- \$299,059.

Inter-personnel Act Agreement-US Army Corps of Engineers Waterways Experiment Station- Summer salary support for Robert Doyle 1999 & 2000, \$ 39,296.

Inter-personnel Act Agreements- US Army Corps of Engineers Waterways Experiment Station Salary support for Dr. Gary Dick 10/98-9/00, \$119,750.

Inter-personnel Act Agreements- US Army Corps of Engineers Waterways Experiment Station Salary support for Mr. Matt Francis 2/00-12/00, \$31,334.95.

Inter-personnel Act Agreements- US Army Corps of Engineers Waterways Experiment Station 50% salary support for Mr. David Honnell 6/99-5/01, \$61,836.

Establishment of native aquatic plans for lake restoration and fish habitat enhancement- Texas Parks and Wildlife Department, Co-investigator with Dickson and Dick, \$137,684.

Development of Aquatic Ecosystem Restoration Technologies- Aquatic Ecosystem Restoration Foundation, \$36,500.

Determination of the carbon sources for Texas Wildrice and other aquatic plants of the Comal and San Marcos Rivers, UNT Faculty Development Grant, \$3,800.

1992-1998 Funding (Prior to joining faculty at UNT in 1998)

1998, Effects of Biocontrol Agents on the Competitive Interactions Between Exotic and Native Plant Species (COE, 70,000, Co-PI w/ M. Smart)

1998, Assessment of Vegetation Loss During Low Flows for Development of Adaptive Management Recommendations (USFWS, \$101,000)

1998, Restoration of TX Wildrice and Other Vegetation: Comal and San Marcos Rivers, (USFWS, \$14,333)

1998, Effects of Inorganic Clay Turbidity on the Growth and Reproductive Potential of Native Submersed Plants (COE, \$12,500)

1998, Lake Wister Native Plant Establishment (Tulsa COE, \$13,250)

1998, Eradication of Hydrilla on the Comal River and Restoration with Native Species (USFWS,

- \$6,000)
- 1998, Development of a Wetland For Water Quality Benefits of Oyster Creek, TX. (Brazos River Authority, \$15,000)
- 1997, Assessment of Vegetation Loss During Low Flows for Development of Adaptive Management Recommendations (USFWS , \$101,000)
- 1997, Restoration of TX Wildrice and Other Vegetation: Comal and San Marcos Rivers (USFWS , \$14,333)
- 1997, Effects of Inorganic Clay Turbidity on the Growth and Reproductive Potential of Native Submersed Plants (COE, \$54,000)
- 1997, Survival of Macrophytes Under Simulated Wave Energy Regimes (COE, \$35,000)
- 1997, Write section of Environmental Manual entitled "Limnology 101" (COE, \$12,000)
- 1996, Establishment of Native Aquatic Plants in Lake Livingston: Stage I & II, (Texas Parks and Wildlife Department, \$30,000 Co-PI w/ M. Smart)
- 1995-1996, Plantings of Beneficial Native Aquatic Plants in Eagle Mountain Lake, TX. (Tarrant County Water Control District, \$7,900, Co-PI with M. Smart)
- 1995-1996, Effects of Inorganic Clay Turbidity on the Growth and Reproductive Potential of Native Submersed Plants, (COE, \$150,000)
- 1995-1998, Mitigation for Environmental Damages to the Lewisville Lake Environmental Learning Area (Upper Trinity Region Water District, \$200,000. Doyle's role: Negotiated settlement for LLELA with UTRWD)
- 1995-1997, Establishment of Native Aquatic Macrophytes in Lake Conroe for Fish Habitat. (Lake Conroe Restocking Association, \$50,000. Co-PI w/ Mike Smart)
- 1993-1994, Fate of Atrazine in Wetland Mesocosms. (COE Wetlands Research Program, \$130,000, Co-PI w/ Mike Smart)
- 1993, Development of Wetland Trail at the Lewisville Lake Environmental Learning Area, (EPA Region 6, \$20,000)
- 1992-1993, Planting Developed Wetlands at Lake Ray Roberts, TX. (EPA \$20,000, Co-PI w/ M. Smart)

## PUBLICATIONS:

Peer-Reviewed Publications: The following articles have all been published in (or submitted to) international journals.

- Scott, J.T., J.K. Stanley, R.D. **Doyle**, M. Forbes, B.W. Brooks, *Published online January 2009. DOI 10.1007/s10750-008-9696-2. Hydrobiologia*. River-reservoir transition zones are nitrogen fixation hotspots regardless of ecosystem trophic state
- Scott, J.T., D.A. Lang, R.S. King, R.D. **Doyle**, **2009**. Nitrogen fixation and phosphatase activity in periphyton growing on nutrient diffusing substrata: evidence for differential nutrient limitation in stream periphyton. *J. North American Benthological Association*. 28(1):57-68.
- Forbes, M.G., R. D. **Doyle**, J.T. Scott, J. Stanley, H. Huang, B.W. Brooks, **2008**. Physical factors control carbon and nitrogen fixation in eight Texas reservoirs. *Ecosystems*. 11:1181-1197.
- Alexander, M. R.D. **Doyle**, P. Power. **2008**. Suction Dredge Removal of an Invasive Macrophyte From a Spring-fed River in Central Texas, USA. *J. Aquatic Plant Management*. 46:184-185.
- Scott, J.T., R.D. **Doyle**, S. Prochnow, and J.D. White. **2008**. Are watershed and lacustrine controls on planktonic n<sub>2</sub> fixation hierarchically structured?. *Ecological Applications*. 18:805-819.
- Diana L. Engle, D.L., J.M. Melack, R.D. **Doyle**, and T.R. Fisher, **2008**. High rates of net primary production and turnover of floating grasses on the Amazon floodplain: Implications for aquatic respiration and regional CO<sub>2</sub> flux. *Global Change Biology* 14:396-381.
- Scott, J.T., M.J. McCarthy, W.S. Gardner, and R.D. **Doyle**. **2008**. Denitrification, dissimilatory nitrate reduction to ammonium, and nitrogen fixation along a nitrate concentration gradient in a created freshwater wetland. *Biogeochemistry* 87:99-111.
- Doyle**, R.D., M. Grodowitz, M. Smart, and C. Owens, **2007**, Separate and interactive affects of

- competition and herbivory on the growth, expansion and tuber formation of *Hydrilla verticillata*. *Biological Control* 41:327-338.
- Scott, J.T., R.D. **Doyle**, J.A. Back, and S.I. Dworkin. **2007**. The role of N<sub>2</sub> fixation in alleviating N limitation in wetland metaphyton: enzymatic, isotopic, and elemental evidence. *Biogeochemistry* 84: 207-218.
- Scott, J.T., R.D. **Doyle**. **2006**. Coupled photosynthesis and heterotrophic bacterial biomass production in a nutrient-limited wetland periphyton mat. *Aquatic Microbial Ecology* 45:69-77.
- Forbes, M., K. Dickson, F. Saleh, W. Waller, R.D. **Doyle**, and P. Hudak. **2005**, Recovery and fractionation of phosphorus retained by lightweight expanded shale and masonry sand used as media in subsurface flow treatment wetlands. *Environmental Science and Technology* 39:4621-4627.
- Scott, J.T., R.D. **Doyle**, and C.T. Filstrup. **2005**, Periphyton nutrient limitation and nitrogen fixation potential along a wetland nutrient depletion gradient. *Wetlands* 25:439-448.
- Power P. and R.D. Doyle. **2004**. Carbon use by the endangered Texas Wild Rice (*Zizania texana*, Poaceae). *Sida, Contributions to Botany*, 21:389-398
- Forbes, M., K. Dickson, T. Golden, R.D. **Doyle**, P. Hudak. **2004**. Dissolved Phosphorus Retention of Light-Weight Expanded Shale and Masonry Sand Used in Subsurface Flow Treatment Wetlands. *Environ. Sci. Technol.* 38,892-898.
- Doyle**, R.D., M Francis, and R.M. Smart. **2003**. Competitive interactions between *Ludwigia repens* and *Hygrophila polysperma*, morphologically similar aquatic macrophytes of the Comal River, Texas. *Aquatic Botany* 77:223-234.
- Doyle**, R.D., M. Grodowitz, R.M. Smart, C. Owens. **2002**. Impact Of *Hydrellia Pakistanae* (Diptera: Ephydriidae) herbivory On growth and photosynthetic potential of *Hydrilla verticillata*. *Biological Control* 24:221-229.
- Doyle**, R.D. **2001**. Expansion and distribution of the exotic aquatic plant *Cryptocoryne beckettii* in the San Marcos River, TX. *Sida; contributions to botany* 19:1027-1038.
- Best, P.H., C.P. Buzzelli, S.M. Bartell, R.L. Wetzel, W.A. Boyd, R.D. **Doyle**, and K.R. Campbell. **2001**. *Hydrobiologia*. Modeling submersed macrophyte growth in relation to underwater light climate: modeling approaches and application potential. *Hydrobiologia* 444:43-70.
- Doyle**, R.D. **2001**. Effects of waves on the early growth of *Vallisneria americana*. *Freshwater Biology* 46:389-399.
- Doyle**, R.D. and R.M. Smart. **2001**. Impacts of water column turbidity on the survival and growth of *Vallisneria americana* winterbuds and seedlings. *Lake and Reservoir Management* 17:17-28.
- Doyle**, R.D. and R.M. Smart. **2001**. Effects of drawdown and dessication on tubers of *Hydrilla verticillata*, an exotic aquatic weed. *Weed Science* 49:135-140.
- Doyle**, R.D., P. Power, and K. Kennedy. **2000**. Reintroduction potential of Texas Wildrice (*Zizania texana*) into the San Marcos River, Texas. pp 179-184, L.S. Williamson, LA Dlutkowski, and A.P. McCammon Soltis (eds), *Proceedings, Wild Rice Research and Management Conference*, Carlton, Minnesota.
- Stewart, L.K., P.F. Hudak, and R.D. **Doyle**. **1998**. Modeling hydrologic alterations to a developing wetland in an abandoned borrow pit. *Journal of Environmental Management*. 53:231-239.
- Doyle**, R.D. and R.M. Smart, **1998**. Competitive reduction of noxious *Lyngbya wollei* mats by rooted aquatic plants. *Aquatic Botany*. 61:17-32.
- Smart, R.M., G.O. Dick, and R.D. **Doyle**. **1998**. Techniques for establishing native aquatic plants. *J. Aquat. Plant Management*. 36:44-49.
- Doyle**, R.D., R.M. Smart, C.Guest, and K. Bickel, **1997**. Establishment of native aquatic plants for fish habitat: test plantings in two North Texas reservoirs. *Lake and Reservoir Management*. 13:259-269.
- Smart, R.M., R.D. **Doyle**, J.D. Madsen, and G.O. Dick. **1996**. Establishment of native submersed aquatic plant communities for fish habitat. In L.E. Miranda and D.R. DeVries (eds.) *Multidimensional*

- Approaches to Reservoir Fisheries Management. American Fisheries Society Symposium*, 16:347-356.
- Doyle, R.D. and T.R. Fisher. 1994.** Nitrogen fixation by periphyton and plankton on the Amazon floodplain at Lake Calado. *Biogeochemistry* 26:41-66.
- Lind, O.T., R.D. **Doyle**, D.S. Vodopich, B.G. Trotter, J.G. Limon, L. Davalos-Lind. **1992.** Clay turbidity; Regulation of phytoplankton production in a large, nutrient-rich tropical lake. *Limnol. Oceanogr.* 37(3): 549-565.
- Limon, J.G., O.T. Lind, D.S. Vodopich, R.D. **Doyle**, and B.G. Trotter, **1989.** Long- and short-term variation in the physical and chemical limnology of a large, shallow, turbid tropical lake (Lake Chapala, Mexico). *Arch. Hydrobiol. /Suppl.* 83 1:57-81.
- Fisher, T.R., R.D. **Doyle**, and E.R. Peele. **1988.** Size-fractionated uptake and regeneration of ammonium and phosphate in a tropical lake. *Verh. Internat. Verein. Limnol.* 23:637-641.
- Davalos, L., O.T. Lind, and R.D. **Doyle. 1989.** Evaluation of phytoplankton-limiting factors in Lake Chapala, Mexico: Turbidity and the spatial and temporal variation in algal assay response. *Lake and Reservoir Management* 5:99-104.

Reports and Other Publications (peer-reviewed reports are indicated)

- Doyle, R.D. In Review.** Development of Techniques for Establishment of Native Aquatic Vegetation in the Comal and San Marcos Rivers, TX. Final Report to USFWS (peer reviewed report).
- M. Grodowitz, R.D. **Doyle**, M. Smart, C. Owens. **2004.** *Hydrellia pakistanae* and *H. balciunasi*- Insect biocontrol agents for hydrilla: boon or bust? (Peer-reviewed) Proceedings, XI International Symposium of Biological Control of Weeds in Canberra Australia.
- Doyle, R.D. 2001.** *Effects of inorganic clay turbidity on the growth and reproductive potential of submersed aquatic macrophytes.* Technical Report, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. (peer reviewed report)
- Doyle, R.D. 1999.** *Effects of Waves on the early growth of Vallisneria americana* Upper Mississippi River- Illinois Waterway System Navigation Study. EVN Report 12 (peer reviewed report)
- Grodowitz, M., R. D. **Doyle** and Smart, R.M. **1999.** *Potential use of Insect Biocontrol Agents for Reducing the Competitive Ability of Hydrilla verticillata.* Misc. Paper A-99-, November 1999.
- Smart, R.M., R.D. **Doyle**, Madsen, J.D., and Dick, G.O. **1996.** *Establishing native submersed aquatic plant communities in southern reservoirs.* Technical Report A-96-2, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. (peer reviewed report)
- Smart, R.M., G. Dick, and R.D. **Doyle. 1996.** Grass=Bass: Native Aquatic Plants for Fish Habitat (I). *Our Inland Fisheries*, Jan/Feb pp 20-24.
- Smart, R.M., G. Dick, and R.D. **Doyle. 1996.** Grass=Bass: Native Aquatic Plants for Fish Habitat (II). *Our Inland Fisheries*, March/April pp 70-76.
- Smart, R.M., G. Dick, and R.D. **Doyle. 1996.** Grass=Bass: But Hydrilla is not the solution to habitat needs. *Our Inland Fisheries*, May/June pp 71-75.
- Doyle, R.D. and R.M. Smart, 1995.** Competitive interactions of native plants and nuisance species in Guntersville Reservoir. *Proceedings, 29th Annual Meeting, Aquatic Plant Control Research Program.* Miscellaneous Paper A-95-3, US Army Engineer Waterways Experiments Station, Vicksburg, MS, pp 237-242.
- Dickson, K., R.D. **Doyle**, and others. **1995.** *Ray Roberts Lake: Year Six Post-Impoundment Environmental Study.* US Army Corp of Engineers Fort Worth District. 226p.
- Doyle R.D. and R.M. Smart. 1995.** *Potential use of native aquatic plants for long-term control of problem aquatic plants in Guntersville Reservoir, Alabama; Report 2, Competitive interactions between beneficial and nuisance species.* Technical Report A-93-6, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. (peer reviewed report)

- Smart, R. M. and R.D. **Doyle**, **1995**. Ecological Theory and Management of Submersed Aquatic Plant Communities. Information Exchange Bulletin A-95-3, APCRP, US Army Engineer Waterways Experiment Station, Vicksburg, MS. (peer reviewed report)
- Doyle**, R.D., and R.M. Smart. **1994**. Guntersville reservoir plant competition studies. *Proceedings, 28th Annual Meeting, Aquatic Plant Control Research Program*. Miscellaneous Paper A-94-2, US Army Engineer Waterways Experiments Station, Vicksburg, MS, 138-143.
- Doyle**, R.D. and R.M. Smart. **1993**. *Potential Use of Native Aquatic Plants for long-term Control of Problem Aquatic Plants in Guntersville Reservoir, Alabama. Report 1. Establishing Native Plants*. Technical Report A-93-6., US Army Engineer Waterways Experiment Station, Vicksburg, MS, 66p.
- Doyle**, R.D., and R.M. Smart. **1993**. Competitive ability of selected aquatic macrophytes in *Lyngbya*-dominated littoral zones of Guntersville Reservoir. *Proceedings, 27th Annual Meeting, Aquatic Plant Control Research Program*. Miscellaneous Paper A-93-2, US Army Engineer Waterways Experiments Station, Vicksburg, MS, 242-248.
- Doyle**, R.D., K. Dickson, and D. Sturges. **1993**. Created wetlands on Lake Ray Roberts, Texas: design, pre-impoundment status, and research opportunities. pp 827-834. Landin, M.C. (ed.) *Wetlands: Proceedings of the 13th Annual Conference of the Society of Wetland Scientist, New Orleans, LA*. South Central Chapter, Society of Wetland Scientist, Utica, MS. (peer reviewed paper in proceedings)
- Smart, R.M., R.D. **Doyle**, D. Murphy, and D. Webb. **1993**. Establishment of floating-leaved and emergent wetland vegetation to restore degraded littoral environments. pp 663-667. Landin, M.C. (ed.) *Wetlands: Proceedings of the 13th Annual Conference of the Society of Wetland Scientist, New Orleans, LA*. South Central Chapter, Society of Wetland Scientist, Utica, MS. (peer reviewed paper in proceedings)
- Lind, O.T., R.D. **Doyle**, D.S. Vodopich, B.G. Trotter, G. Glass, L. Davalos-Lind, J.G. Limon. **1992**. Lago de Chapala: factores que controlam la produccion de fitoplancton. *Ingenieria Hidraulica en Mexico*, 1:17-32.
- Fisher, T.R. and R.D. **Doyle**, **1987**. Nutrient cycling in Chesapeake Bay. pps. 49-53 IN G.B. Mackiernan (ed). *Dissolved Oxygen in the Chesapeake Bay: processes and effects*. MD Sea Grant Pub. no. UM-SG-TS-87-03. (peer reviewed)

## PRESENTATIONS AT PROFESSIONAL CONFERENCES:

- Doyle, E. I., **Doyle**, R.D., Deike, E., and Hartman, J. **2008**. Using the Global School-Based Student Health Survey among Brazilian Adolescents. SOPHE, October 2008.
- Sheppard (Davis) M., Doyle, E.I., Lutz, R., **Doyle**, R.D., Usdan, S.L. **2008**. Mobilizing the community through community-based participatory research in Brazilian Churches. The American Public Health Association, 136<sup>th</sup> Annual Meeting & Exposition (October 25-29, 2008), San Diego, CA
- Forbes, M.G, R.D. **Doyle**, B. Hunter, J. Yelderman, B. Brooks, and S. Usenko. **2008**. Evaluating water quality and water storage functions of coastal prairie freshwater wetlands in the Houston-Galveston Bay area. Soc. Wetland Scientist May, Washington DC, May 26-30.
- Nitrogen dynamics along a nitrate concentration gradient in a created freshwater wetland. **2008**. R.D. **Doyle**, J. Thad Scott, Mark J. McCarthy, Wayne S. Gardner. Soc. Wetland Scientist May, Washington DC, May 26-30.
- Doyle**, R.D., M. Forbes, T. Scott, T. Conry. **2008**. Water Quality Benefits of the Lake Waco Wetlands. *Invited presentation* TCEQ/TOWTRC Annual Meeting, March 4-5, Waco.
- Davis, M., Doyle, E. I., Lutz, R., & **Doyle**, R.D. **2008**. A Delphi Study of Key Informants: Can Brazilian Churches Promote Community Health? Annual Convention of the American Alliance for Health, Physical Education, Recreation and Dance, Fort Worth, TX, April 8-12, 2008.
- Davis, M., Doyle, E.I., Lutz, R., & **Doyle**, R.D. **2007**. A descriptive look at the health status of Brazilian church members through the use of community based participatory research. Annual Convention

- of the Alabama Alliance for Health, Physical Education, Recreation and Dance, Birmingham, AL, November 13, 2007.
- Doyle, R.D. M. Forbes, J. Belden, B.W. Brooks. 2007.** Quantifying the Water Quality Functions of Wetlands. Invited presentation, Galveston Bay Estuary Program's Eighth Biennial State of the Bay Symposium. Galveston, TX.
- Doyle, R.D., M.L. Mullins, Schell N.Y., 2007.** Marsh madness: a science education adventure focused on wetland environments. ASLO, February 2007, Santa Fe, NM.
- Huang, H., R.D. **Doyle, J.T. Scott, 2007.** Spatial and temporal patterns of planktonic and community metabolism in Texas reservoirs: a test of the reservoir zonation model. ASLO, February 2007, Santa Fe, NM.
- Scott, J.T. Doyle, R.D., Prochnow, S.J., White, J. D., **2007.** Watershed and pelagic predictors of Cyanobacterial n<sub>2</sub> fixation in a eutrophic Reservoir. ASLO, February 2007, Santa Fe, NM.
- Conry, S., M.L. Mullins, R.D. Doyle. **2007.** The distribution and expansion of *Arundo donax* (giant reed), an invasive riparian plant species, along the Lake Brazos corridor. Texas Academy of Science, March 2007, Waco, TX.
- Mullins, M.L. R.D. **Doyle. 2007.** Restoring aquatic plant communities: the San Marcos River experience. Texas Academy of Science, March 2007, Waco, TX.
- Doyle, R.D., M.L. Mullins, 2007.** Marsh madness: a science education adventure focused on wetland environments. Texas Academy of Science, March 2007, Waco, TX.
- Scott, T., R.D. Doyle, J. White, S. Prochnow. 2006. Identifying watershed and pelagic thresholds favoring planktonic N<sub>2</sub> fixation in a eutrophic reservoir: A combined mechanistic-empirical modeling approach. North American Lake Management Society, November 8-11. Indianapolis, IN.
- Mullins, M., and R.D. Doyle, 2006. Aquatic macrophyte restoration in the San Marcos river following removal of an invasive species. TX Society for Ecological Restoration, August 18-20, Hunt, TX.
- Scott, T. and R.D. Doyle. 2006. Identifying watershed and pelagic thresholds favoring planktonic n<sub>2</sub> fixation in a eutrophic reservoir: a combined mechanistic-empirical modeling approach. TRRMS, May 18-19, Austin, TX.
- Scott, T. and R.D. Doyle. 2006. Coupled photosynthesis and bacterial biomass production in a nutrient-limited wetland periphyton mat. Society of Wetland Scientists, 27<sup>th</sup> International Meeting, Cairns, Australia.
- Huang, H., and R.D. Doyle, 2006. Patterns of planktonic and community metabolism along the riverine-lacustrine gradient in texas reservoirs. TRRMS, May 18-19, Austin, TX.
- Conry, S., M. Mullins, and R.D. Doyle, 2006. Expansion of the invasive riparian plant, the giant reed (*Arundo donax*), along the lake brazos corridor. TRRMS, May 18-19, Austin, TX.
- Doyle, R.D., M Mullins, P Power, V Cantu, 2005. A Central Texas restoration project-- removal of an exotic aquatic macrophyte in a spring-fed system. International Spring Symposium, Mexico.
- Doyle, R.D. M. Mullins. 2005. Restoration of the lower San Marcos River: Removal of the exotic plant *Cryptocoryne beckettii* and re-establishment of natives. (SWS Regional Mtg, San Marcos, TX.)
- Doyle, R.D., S. Conry, and J.T. Scott. 2005. Lake Waco Wetland: habitat, research and water quality. (SWS Regional Mtg, San Marcos, TX.)
- J. Thad Scott and Robert D. Doyle, 2005. Enzymatic Controls On Metaphyton Primary Production And Cnp Stoichiometry In A Created Wetland. TRRMS Annual Meeting, Baylor University.
- Scott, J.T. and R. Doyle. 2005. Nitrogen Fixation and natural abundance of nitrogen isotopes in wetland periphyton communities. (SWS Regional Mtg, San Marcos, TX. Winner student competition w/ airfare to international SWS in Australia!).
- Doyle, R.D. J.T. Scott, and T. Conry, 2005. Can the Wetlands Save the Lake? The Role of a Constructed Wetland in Protecting the Water Quality of Lake Waco. 9<sup>th</sup> International Symposium on Biogeochemistry of Wetlands, March 20-23, 2005, Baton Rouge, Louisiana



- Doyle, R.D., T. Conry, J.T. Scott. 2005. Baylor university Center for Reservoir and Aquatic Systems Research (CRASR): promoting interdisciplinary aquatic research and education. ASLO winter meeting, Salt Lake City.
- Doyle, R. D., J.T. Scott, and T. Conry. 2005. Planktonic nitrogen fixation in a texas reservoir: hot spots and hot moments. ASLO winter meeting, Salt Lake City.
- Scott, J.T. R. Doyle, T. Conry. 2005. Periphyton nutrient limitation and nitrogen fixation along a differential wetland nutrient depletion gradient. ASLO winter meeting, Salt Lake City.
- Scott, T., R.D. Doyle, T. Conry. 2004. Periphyton nutrient limitation and nitrogen fixation potential along a differential n and p depletion gradient in a freshwater marsh. (Society of Wetland Scientists, Seattle Washington)
- Scott, T., R.D. Doyle, T. Conry. 2004. Periphyton nutrient limitation and nitrogen fixation along a differential wetland nutrient depletion gradient. (Am. Soc. Limnology and Oceanography, Savannah, GA.)
- R.D. Doyle, Scott, T., T. Conry. 2004. Planktonic nitrogen fixation in a texas reservoir: hot spots and hot moments. (Am. Soc. Limnology and Oceanography, Savannah, GA.)
- Scott, T., R.D. Doyle, and T. Conry. 2004. Spatial Trends In Periphyton Nutrient Status: Examination Along A Differential Nutrient Depletion Gradient In A Freshwater Marsh. (TX Academy of Science Meeting, Kerrville, TX)
- Swindle, R. and R.D. Doyle, Baylor University, 2004. Macrophyte Community Change In The San Marcos And Comal River. (TX Academy of Science Meeting, Kerrville, TX)
- Doyle, R.D. and T. Conry. 2004. Planktonic Nitrogen Fixation In Lake Waco: Hot Spots And Hot Moments. (TX Academy of Science Meeting, Kerrville, TX)
- Scott, T., R.D. Doyle, T. Conry. 2003. Periphyton Response to Total Nutrient Depletion and Shifting N:P Ratio in a Constructed Freshwater Wetland. (International conference of the Society of Environmental Toxicology and Chemistry, Austin, TX).
- Scott, T., R.D. Doyle, T. Conry. 2003. The impact of shifting N:P ratio on periphyton function along a nutrient depletion gradient in a constructed freshwater marsh. Annual meeting of the South Central Chapter of the Society of Wetland Scientists, Lake Texoma, OK.
- Doyle, R.D. and Power, P. 2003. Expansion of *Cryptocoryne beckettii* on the San Marcos River of Texas threatens *Zizania texana*, a federally listed aquatic plant species. Texas Watch Flood Symposium, San Marcos, TX (invited paper).
- Doyle, R.D. 2003. The bad guys win again: impacts of a major flood disturbance on the aquatic plant community of a spring-fed river. 7th International Conference on the Ecology and Management of Alien Plant Invasions, Ft Lauderdale, November.
- Doyle, R.D. & P. Power. 2003. Expansion of *Cryptocoryne beckettii* on the San Marcos River of Texas threatens *Zizania texana*, a federally listed aquatic plant species. 7th International Conference on the Ecology and Management of Alien Plant Invasions, Ft Lauderdale, November.
- Doyle, R.D. & P. Power, 2003. Texas Wildrice (*Zizania texana*) of the San Marcos River, TX: Can this species be saved? International meeting of the Society of Wetland Scientists, New Orleans, LA.
- Doyle, R.D. T. Scott, T. Conry, R. Howard, 2003. Can the wetland save the Lake? International meeting of the Society of Wetland Scientists, New Orleans, LA.
- Doyle, R.D. 2003. Ecological restoration of Texas aquatic plant communities: establishing desirable native species. TX Academy of Sciences.
- Doyle, R.D. 2002. Control of *Cryptocoryne beckettii* on the San Marcos River, options and progress. TX Aquatic Plant Management Society, Conroe, TX.
- Doyle, R.D. 2002. *Cryptocoryne beckettii*: A Apretty@ aquarium plant threatens endangered aquatic plant species in the San Marcos River, TX. Aquatic Plant Management Society, Keystone, Colorado.
- Doyle. R.D., M. Grodowitz, R.M. Smart, and C. Owens. 2001. Impacts of *Hydrellia pakistanae* on the growth and photosynthetic potential of *Hydrilla verticillata*. TX Aquatic Plant Management Society, Victoria, TX.

- M. Grodowitz and R. Doyle. 2001. Introduction to Biocontrol. TX Aquatic Plant Management Society, Victoria, TX.
- Doyle, R.D. and P. Power. 2001. Ecology and management of *Zizania texana* (Texas Wild Rice), an endangered aquatic macrophyte of the San Marcos River, Texas. Ecological Society of America.
- Doyle, R.D., M. Grodowitz, R.M. Smart, and C. Owens. 2001. Impacts of *Hydrellia pakistanae* on the growth and photosynthetic potential of *Hydrilla verticillata*. Aquatic Plant Management Society, Minneapolis MN.
- Doyle, R.D. and R.M. Smart. 2001. *Hydrilla verticillata*: distribution, impacts, and ecological considerations for the control of this exotic aquatic macrophyte. 104<sup>th</sup> Annual meeting, Texas Academy of Science, San Marcos, TX (invited presentation)
- Doyle, R.D. and P. Power. 2001. Ecology and management of Texas Wild Rice and the aquatic plant community of the San Marcos River, Texas. 104<sup>th</sup> Annual meeting, Texas Academy of Science, San Marcos, TX (invited presentation)
- Doyle, R.D. and M. Smart. 2000. Flood disturbance increase abundance of non-native aquatic macrophytes in Texas rivers. 20<sup>th</sup> International Symposium of the North American Lake Management Society, (Miami, FL).
- Doyle, R.D. 2000 Potential control of *Hydrilla verticillata* by use of an insect biocontrol agent in combination with a competitive native species. TX Aquatic Plant Management Society (Denton, TX).
- Doyle, R.D., M. Smart, M. Grodowitz. 2000. Potential control of *Hydrilla verticillata* by use of a classical biocontrol agent in combination with a competitive native species. III International Weed Science Congress, invited presentation, (Iguacu, Brazil).
- Doyle, R.D. and M. Francis. 2000. Impact of the flood of 1998 on the aquatic plant communities of the Comal and San Marcos rivers, TX. 103<sup>rd</sup> Meeting Texas Academy of Science (Kingsville, TX).
- Doyle, R.D., 1999. Protecting the Native Aquatic Plant Communities of the Comal and San Marcos River, TX. 39<sup>th</sup> International Meeting of the Aquatic Plant Management Society (Asheville, NC.)
- Grodowitz, M., R.D. Doyle, R. M. Smart. 1999. Effects of biocontrol agents on the competitive interactions between nuisance exotics and desirable native aquatic plants. 39<sup>th</sup> International Meeting of the Aquatic Plant Management Society (Asheville, NC.).
- Doyle, R.D., P. Power, and K. Kennedy. 1999. Assessment of Reintroduction Potential of Texas Wildrice (*Zizania texana*) into the San Marcos River. Wild Rice: Research and Management Conference, (Duluth, MN.)
- Francis, M. and R.D. Doyle. 1998. Intraspecific competition between *Hygrophila polysperma* and *Ludwigia repens* in the Comal River, New Braunfels, TX (Denton, TX).
- Pennington, T., A.W. Groeger, P. Power, and R.D. Doyle. 1998. Identifying nutrient content and composition to further characterize the habitat associated with the endangered Texas Wildrice (*Zizania texana* Hitch). Texas River and Reservoir Management Society (Denton, TX).
- Doyle, R.D. P. Power, P. Connor. 1998. Assisted Recovery of Texas Wildrice (*Zizania texana*) in the San Marcos River. Society of Ecological Restoration (Austin, TX).
- Smart, R.M., G. Dick, and R.D. Doyle. 1998. Ecological Effects of Native Aquatic Plants. 38<sup>th</sup> Meeting of the Aquatic Plant Management Society (Memphis, TN)
- Grodowitz, R.M., R.D. Doyle, M. Smart. 1998. Effects of biocontrol agents on the competitive interactions between nuisance exotics and desirable native aquatic plants. 38<sup>th</sup> Meeting of the Aquatic Plant Management Society (Memphis, TN).
- Forbes, M., R. Doyle, T. Conry, H. Chen. 1998. Wetland creation in Sugarland, TX: building a hydrophytic community. Society of Wetland Scientist (Memphis, TN)
- Doyle, R.D. 1998. Effects of inorganic turbidity on the growth and reproductive potential of native macrophytes. American Society of Limnology and Oceanography (St. Louis, MO).
- Doyle, R.D. and R.M. Smart. 1997. Role of aquatic macrophytes in reservoir ecosystems. 17<sup>th</sup> International Symposium of the North American Lake Management Society, (Houston, TX)

- Doyle, R.D. 1997. Effects of inorganic turbidity on the growth and reproductive potential of native macrophytes. Aquatic Plant Management Society Meeting (Fort Meyers, Florida.)
- Doyle, R.D. and R.M. Smart. 1996. Establishing Native Vegetation in Southern Reservoirs: Why and How. Aquatic Plant Management Society Meeting, (Burlington, VT)
- Doyle, R.D., R. M. Smart, G.O. Dick, and M. Webb. 1996. Ecological restoration of Lake Conroe, TX: Establishment of native submersed aquatic macrophytes. Texas Academy of Sciences. Galveston.
- Doyle, R.D., and R.M. Smart. 1995. Restoration and rehabilitation of Texas reservoirs: the role of native aquatic macrophytes. North American Lake Management Society 15<sup>th</sup> International Symposium. (Toronto, Canada)
- Smart and R.D. Doyle. 1995. Propagation and planting of desirable aquatic plant species. Texas Aquatic Plant Management Society. (Galveston, TX)
- Doyle, R.D., R.M. Smart, and C. Guest. 1995. Establishing native macrophytes for fish habitat in North Texas Reservoirs. Texas Chapter American Fisheries Society. (College Station, TX)
- Doyle, R.D. 1995. Hydrilla infestations in Texas Reservoirs: The problem of controlling dormant tubers. Texas Academy of Science. (Waco, TX)
- Doyle, R.D. 1994. Establishment of native submersed aquatic plants in Texas reservoirs for habitat enhancement. Texas River and Reservoir Management Society Meeting. (Waco, TX)
- Doyle, R.D. and R.M. Smart. 1994. Field tests of the use of native aquatic plants to control Eurasian watermilfoil in a southeastern reservoir. North American Lake Management Society 14<sup>th</sup> Annual International Symposium, (Orlando, FL)
- Doyle, R.D. and R.M. Smart. 1994. Native Emergent Macrophytes may ameliorate the negative impacts of *Lyngbya*. North American Lake Management Society 14<sup>th</sup> Annual International Symposium, (Orlando, FL)
- Smart, R.M. and R.D. Doyle. 1994. Establishment of native submersed aquatic plants and their potential for resisting invasion by exotic, weedy species. North American Lake Management Society 14<sup>th</sup> Annual International Symposium, (Orlando, FL)
- Doyle, R.D. and R.M. Smart. 1994. Use of Native Aquatic Plants for Control of Nuisance Species in Guntersville Reservoir, Alabama. The Aquatic Plant Management Society, Thirty-Fourth Annual Meeting, (San Antonio, TX)
- Power, P., and R.D. Doyle. 1994. Carbon sources for submerged leaves of the endangered *Zizania texana* (Texas Wildrice). The Aquatic Plant Management Society, Thirty-Fourth Annual Meeting, (San Antonio, TX)
- Doyle, R.D., T. Myers, and D. Adrian. 1993. Atrazine Retention and Disappearance in Experimental Wetland Mesocosms. 2nd Biennial Symposium on Biogeochemistry of Wetlands. (LSU)
- Doyle, R.D. and R.M. Smart. 1993. Competitive ability of selected aquatic macrophytes in *Lyngbya* infested areas of Lake Guntersville, AL. North American Lake Management Society Conference. (Chattanooga, TN)
- Doyle, R.D. 1993. Creating wetlands at Lake Ray Roberts: objectives, design, vegetation, and cost. Texas Lake and Reservoir Management Society Annual Conference. (Dallas, TX)
- Doyle, R.D., and T.R. Fisher. 1992. Biomass and nitrogen uptake of macrophyte/periphyton complex in an Amazon floodplain lake. INTECOL's IV International Wetlands Conference. (Columbus, OH)
- Doyle, R.D., and M. Smart. 1992. Establishment success and competitive ability of selected aquatic macrophytes in *Lyngbya*-dominated littoral zones of Guntersville, Alabama. Mid-South Aquatic Plant Management Society Meeting. (Guntersville, AL)
- Doyle, R.D., K. Dickson, D. Sturges, and M. Smart. 1992. Created wetlands on Lake Ray Roberts, TX: Design, pre-impoundment status, and research opportunities. Soc. of Wetland Scientists, (New Orleans, LA)
- Doyle, R.D. 1992. Nitrogen fixation by periphyton on the Amazon floodplain. ASLO, (Santa Fe, NM)
- Fisher, T.R., R.D. Doyle, M. Moline, and D.L. Engle. 1990. Ecology of periphyton on the Amazon floodplain. Symp. Floodplain Rivers. (LSU. Baton Rouge, LA)

- Doyle, R.D., and T.R. Fisher. 1988. Photosynthesis and respiration of periphyton on the Amazon floodplain. ASLO/AGU Ocean Science Meeting (Dec).
- Fisher, T.R., L. Alves, R.D. Doyle, M. Moline, E. Peele, L. Smith-Morrill. 1988. Periphyton on the Amazon River floodplain. ASLO/AGU.
- Fisher, T.R., E.R. Peele, and R.D. Doyle. 1988. Phosphorus Dynamics in the Chesapeake Bay. ASLO/AGU
- Fisher, T.R., L. Smith-Morrill, R.D. Doyle, and E.R. Peele. 1988. Productivity and nutrient cycling on the Amazon's floodplain. Chapman Conference on Amazon Dispersal Systems.
- Doyle, R.D., T.R. Fisher, and E.R. Peele. 1987. Biomass and productivity of periphyton on the

## PART III. PROFESSIONAL MEMBERSHIP AND SERVICE

- Amazon's floodplain. ASLO.
- Fisher, T.R., R.D. Doyle, and E.R. Peele. 1987. Uptake and regeneration of phosphate on the Amazon's floodplain. ASLO.
- Fisher, T.R., R.D. Doyle, and E.R. Peele. 1987. Size-fractionated uptake and regeneration of ammonium and phosphate in a tropical lake. SIL Congress. New Zealand.
- Fisher, T.R. and R.D. Doyle, 1987. Nutrient cycling in Chesapeake Bay. MD Sea Grant conference on oxygen in the Chesapeake Bay and related processes.
- Fisher, T.R. and R.D. Doyle. 1986. N and P cycling in an Amazon River floodplain lake. Freshwater Wetlands and Wildlife Symp. Univ. of Georgia.
- Doyle, R.D. and L. Davalos. 1985. Phytoplankton production in a large tropical lake (Lago Calado, Mexico) II. factors controlling biomass and production. 48th ASLO meeting.

### MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:

American Society of Limnology and Oceanography,  
 Society of Wetlands Scientist,  
 Aquatic Plant Management Society,  
 North American Lake Management Society,  
 Society for Ecological Restoration  
 Texas River and Reservoir Management Society,  
 Texas Aquatic Plant Management Society,  
 Texas Academy of Sciences, Fellow

### EDITORIAL AND REVIEW ACTIVITIES:

#### Associate Editor: (2000-2002)

Associate Editor of *Wetlands* (peer reviewed journal of the Society of Wetlands Scientists)

#### Manuscript Reviewer for Journals:

*Aquatic Botany*. (International peer-review journal, highest rated journal in aquatic botany field).

*Lake and Reservoir Management*. (Peer-reviewed journal of the North American Lake Management Society)

*Journal of Aquatic Plant Management*, (Peer-reviewed journal of the Aquatic Plant Management Society).

*Wetlands* (Peer-reviewed journal of the Society Wetland Scientists).

*Hydrobiologia* (International peer-review journal).

*Sida: Contributions to Botany*, (National peer-review journal).

*Journal of Environmental Quality* (International peer-reviewed journal)

*Estuaries* (International peer-reviewed journal)

*Science of the Total Environment* (peer-reviewed journal)

Grant Reviews:

National Fish and Wildlife Foundation  
 UNT/Baylor Faculty Research Grant Reviewer.  
 International Technical Referee, New Zealand Foundation for Research, Science and  
 Technology. New Zealand Aquatic Plant Management Program Review (1998-2000)  
 Technical Review Panel, Ohio Sea Grant Program.  
 Technical Review Panel, Western Region=s Water Resources Research Competitive Grants  
 Program.  
 Technical Review Panel, EPA Region 6.

Other Review Activities:

USDA, Manuscript peer reviewer.  
 US Army Engineers Waterways Experiment Station, Technical Reviewer

**CURRENT MEMBER OF STATE AND FEDERAL TECHNICAL WORKING GROUPS**

EPA Regional Technical Assistance Group (RTAG) for Nutrient Criteria (the RTAG provides guidance to the States in developing numeric criteria for N and P as mandated under the Clean Water Action Plan)  
 USFWS San Marcos River Recovery Team (Advisory Team, a group of recognized experts in science, policy, and law that provide direction for efforts to restore the San Marcos River).  
 USFWS Texas Wildrice Recovery Team (group of recognized experts in the ecology of the endangered Texas Wildrice *Zizania texana*, working to restore the endangered aquatic plant to the San Marcos River, TX. ).  
*Cryptocoryne beckettii* Eradication Working group- group of scientists that provide direction for efforts to eradicate this species from the San Marcos River.

**OFFICES AND COMMITTEE ASSIGNMENTS IN PROFESSIONAL ORGANIZATIONS:**

National/International Organizations

1997-2001	Aquatic Plant Management Society, Liaison to the North Am. Lake Man. Society
1997	North American Lake Management Society, (Chair Conference Planning Committee for 17th International Symposium).
1997	North American Lake Management Society. 17th International Symposium, Houston, TX. (Program Chair)

State/Regional Organizations

2007	Host organizing committee, TX Academy of Sciences.
2000-2003	TX Aquatic Plant Management Society, Board of Directors
2000	Chair program committee of the TX Aquatic Plant Management Society
1998- 2001	Texas River and Reservoir Management Society. Past-Pres. and Chair of Nominating Committee
1998- 2000	Texas Academy of Science, Board of Directors
1998	Texas River and Reservoir Management Society (Member of Coordinating Committee that organized the annual meeting of the society at UNT)
1997	Texas River and Reservoir Management Society, President and member "NALMS 97" Conference Coordinating Committee.
1997	EPA Region 6 Second Watershed Conference, Denton (Coordinating Committee)
1994-1997	Texas River and Reservoir Management Society, Board of Directors.

1996 North American Lake Management Society Region 6, Fort Worth, TX (Program Chair of First Regional Conference)

#### **EXPERT PARTICIPATION:**

- 2005 National Research Panel to Evaluate Needs of Invasive Aquatic Plant Management in North America, invited expert (La Jolla, CA, 2005).
- 2004 Restoration and Management of Riparian Corridors, TAES Blackland Research Center, invited instructor on stream restoration.
- 2004 San Marcos Recovery Team
- 2003 Golden Algae Workshop, TPWD 10/24-25, Fort Worth, TX (invited participant)
- 1998 Texas Parks and Wildlife Department Aquatic Vegetation Committee, ABass n= Grass@, forum for discussion of effects of vegetation on reservoir fisheries (invited aquatic vegetation expert).
- 1998 US Army COE, AUpper Mississippi River Project: Plant Modeling Workshop@, Oak Ridge, TN, (invited expert on the effects of inorganic turbidity on growth of submersed macrophytes).
- 1997 US Army COE, AModeling Integration and Simulation Team Meeting@, New Orleans, LA. (invited to provide information on the affects of clay turbidity on the growth of aquatic plants).
- 1997 Maryland Department of Natural Resources, AChesapeake Bay Submerged Aquatic Vegetation Re-seeding and Transplanting Workshop@, Belvue, MD., (invited national aquatic plant expert).
- 1996 Southwest Florida Water Management District, ARainbow River - *Lyngbya* Workshop@, Gainesville, FL., (invited expert on the use of macrophytes to control mat-forming algae).
- 1996 US Army COE, AUpper Mississippi River Project: Plant Modeling Workshop@, Oak Ridge, TN, (invited expert on the effects of inorganic turbidity on growth of submersed macrophytes).
- 1996 U.S. Fish and Wildlife Service, ASan Marcos and Comal Spring Ecosystem Viability Assessment and Management Planning: Texas Wild-rice Group@, Austin, TX. (invited aquatic plant expert).
- 1995 US EPA National Conference for Enhancing the State=s Lake Management Programs, Chicago, (representative of the Texas River and Reservoir Management Society, Texas= NALMS affiliate)
- 1994 4<sup>th</sup> Annual Review Meeting of the Guntersville Joint Agency Project (Tennessee Valley Authority - Corps of Engineers), Vicksburg, MS, (participant)
- 1994 US Army COE Aquatic Plant Control Research Program, Vicksburg, MS (research presentation)
- 1993 US Army COE Aquatic Plant Control Research Program, Baltimore MD (research presentation)
- 1993 3<sup>rd</sup> Annual Review Meeting of the Guntersville Joint Agency Project (Tennessee Valley Authority - Corps of Engineers), Guntersville, AL, (technical paper presentation and participant)
- 1992 US Army Corps of Engineer Aquatic Plant Control Research Program, Bellevue, WA. (technical paper presentation and participant)
- 1992 2<sup>nd</sup> Annual Review Meeting of the Guntersville Joint Agency Project (Tennessee Valley Authority - Corps of Engineers), Guntersville, Alabama, (technical paper presentation)

## **PART IV. TEACHING AND STUDENT DEVELOPMENT**

#### **COURSES TAUGHT AT BAYLOR**

Although I currently have a high administrative load (Chair Department of Biology (50%) and Director Center for Reservoir and Aquatic Systems Research (12.5%)) I continue to teach at least one course most semester. I very much enjoy teaching and my student evaluations always exceed comparison norms.

Co-director, Baylor in Brazil Summer Abroad (2006 & 2007)

Dr. Eva Doyle and I direct a summer abroad educational program.

Courses taught at Baylor on a regular rotation:

Wetland Ecology and Management (Bio 5304), graduate course  
Restoration Ecology (Bio 4381), Senior level course for majors  
Principles of Biology II (Bio 1306), Freshman level course for majors  
Bioenergetics & Ecological Stoichiometry (graduate course in development)

Other courses taught

Stream Ecology, Senior level majors' course  
Ecology, Junior level majors' course  
General Biology, non-majors' course

**COURSES TAUGHT AT UNT**

Aquatic Botany (BIOL 5040, 4 credit hour graduate course in aquatic plant ecology)  
Wetland Ecology (UNT= BIOL 5040/4980, 4 credit hour course, senior and graduate level)  
Environmental Health. (UNT= BIOL 5200, 3 hour graduate course).  
Principles of Biology II (UNT BIOL 1720/1722, Botany/Ecology Section- introductory majors biology course)

**THESIS/DISSERTATION ADVISEMENT:**

Chair or Co-Chair, Advisory Committee

Melissa Mullins (PhD, ongoing BU)	Maggie Forbes (Ph.D. 2002 UNT co-advisor)
Sharon Conry (PhD, ongoing BU)	Tessy Baugher (MS, 2001 UNT)
Thad Scott (Ph.D., 2006 BU)	JoEtta Smith (MS, 2001UNT)
Hui Huang (M.S., 2006 BU)	Joe Snow (MS, 2000 UNT)
Robin Bare (M.A. 2005 BU)	Matt Francis (MS, 1999 UNT)
Shannon Mandolin (M.S. Env Studies, 2004 BU)	

Member, M.S. Thesis Advisory Committee

2006, David Lang (M.S. Biology BU)	1998, Diana Sturges (MS, Biology UNT)
2006, Meg Davis (M.S. Community Health, BU)	1998, Marcia Hacket (MS, Biology UNT)
2006, Pablo Davilla (M.S. Env. Science BU)	1998, Glen Clingenpeel (MS, Biology UNT)
2005, Heidi Estep (M.S. Geology BU)	1998, Lily Little (MS, Biology UNT)
2003, Melinda Suchecke (M.S. Env. Science BU)	1997, Ken Bickel (MS, Biology UNT)
2003, Erin Tanski (MS, Biology UNT)	1997, Lisa Stewart (MS, Biology UNT)
2000, Pat Lambert (MS, Biology UNT)	1996, Jason Lacewell (MS, Biology UNT)
1999, Toni Pennington (MS, Biology SWTSU)	

Member, Ph.D. Dissertation Advisory Committee

Ongoing, Jason Locklin (Ph.D. Biology BU)	
Ongoing, Stacey Pfluger (Ph.D. Biology BU)	
Ongoing, Tommy Pettit (Ph.D. Biology BU)	2005, Shane Prochnow (Ph.D. Geology BU)
Ongoing, Chris Filsturp (Ph.D. Biology BU)	2005, Diane Smith (Ph.D. Biology UNT)
Ongoing, June Wolf (Ph.D. Biology BU)	2001, Pinar Baci (Ph.D. Env. Science UNT)
2006, Jacob Stanley (Ph.D. Biology BU)	2001, Jon Hemming (Ph.D. Env. Science UNT)
2006, Bradley Christian (Ph.D. Biology BU)	1999, Kristie Haggard (Ph.D. Psychology UNT)

**PUBLIC EDUCATION:**

2003-06 Master Naturalist training- HOT chapter.  
2002 Baylor University Continuing Education- AAquatic Ecosystems  
1998-99 Instructor for A Master Naturalist Program of North Texas offered by Texas Agriculture Extension Service. Six hour course on Aquatic Ecology.

- 1998 Instructor for Master Gardner- Ecologist Training offered by Texas Agriculture Extension Service, Denton, TX.
- 1996 Instructor for short course offered at the American Fisheries Society Meeting, Mobile, AL. Feb 24-25. AMethods for Establishing Native Aquatic Plants for Fisheries Benefits

**OTHER SERVICE ACTIVITIES:**

- 2001-present City of Waco Lake Waco Wetland Advisory Board
- 1998-2001 Lewisville Lake Environmental Learning Area Board of Directors, Board Member
- 1997-2001 Heard Museum Environmental Education Board (McKinney, TX)
- 1992-1996 Lewisville Lake Environmental Learning Area Board of Directors & President.