MONA ELISABETH SCHWEIGHOFER HOCHMAN

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PROFESSIONAL EXPERIENCE

Texas A&M University at Galveston

Lecturer (Non-Tenured Faculty) **2012 to present**

- Instructor for BIOL 351: Introduction to Microbiology laboratory course.
- Teach basic microbiological techniques to an average of 30 students per semester.
- Includes student-led research project to determine speciation of "unknown" bacterial cultures.
- Created lab manual for use in the course.
- Recipient of the CEO Meritorious Service Award for Classroom Teaching (2014)

Instructor (Staff) **1999-2012**

- Instructor for BIOL 351: Introduction to Microbiology laboratory course.

Seafood Safety Lab, Texas A&M University at Galveston

Laboratory Manager **1998 to present**

- Maintain laboratory FDA Certification for the Examination of Shellfish and Seawater with strict guidelines for QA/QC (FDA Lab #48105).
- Maintain training and records of BSL-2 qualification for all lab employees.
- Maintenance, calibration, and cleaning of lab instruments.
- Responsible for financial management of lab accounts, including purchase order generation, ordering from vendors, billing and payment verification; trained in University's financial software program.
- Maintain inventory of lab consumables and order supplies as needed.
- Training of more than 25 undergraduate student workers and 10 graduate technicians in laboratory and safety techniques; handling of personnel issues while working in collaboration with other lab's technicians.
- Lead tours of the Seafood Safety Lab for visiting University VIPs and prospective students.

Senior Research Associate **2007 to present**

- Monitor yearly fluctuations of *Vibrio vulnificus* and *Vibrio parahaemolyticus* (pathogenic and non-pathogenic forms) in Galveston Bay oysters in conjunction with the Department of State Health Services.

- Work with oyster harvesters from TX, LA, AL, and FL to test and verify post-harvest processes to reduce *Vibrio* levels in oysters prior to consumer usage; test monthly oyster samples according to the National Shellfish Sanitation Program (NSSP) requirements.
- Certified as an FDA analyst for the bacteriological examination of shellfish and seawater (1998 to present).
- Work with TX DSHS Laboratory Evaluation Officers to revise FDA-implemented checklists for use in certifying laboratories for gene probe procedures.
- Proficient in ELISA, API 20E rapid test strip, biochemical (BAM), and gene probe procedures for *Vibrio* spp; working knowledge of qPCR procedures.
- Monitor quality of DI water system utilized in all labs in OCSB building (2010 to present).
- Compile and interpret scientific data collected in lab experiments.
- Upgraded research procedures under FDA guidelines to create a highly efficient laboratory capable of running multiple concurrent samples.

Research Associate **2000-2007**

Research Assistant **1998-2000**

Crane Aquaculture Facility of Baltimore, Maryland

Intern Lab Technician **1995**

- Cared for cultured *Morone saxatilis*; built and maintained flow-through and recirculating systems.
- Inserted subdermal electronic tags into *M. saxatilis* for individual identification.
- Aided in experiments concerning the use of ozone as a bactericide in *Artemia* cultures.

PROFESSIONAL AWARDS

CEO's Meritorious Service Award for Classroom Teaching **2014**
Texas A&M University Galveston

EDUCATION

M.S. in Environmental Sciences with an emphasis on Fisheries Ecology **2000**
University of Maryland College Park

- Thesis: *Fish Sex and Role-Playing: Sex Role Differentiation and Breeding Behaviors of* Hypsophrys nicaraguensis*, the Nicaraguan Cichlid*.
- Field Work in Lake Xiloá and Lake Apoyo, Managua, Nicaragua; > 220 hours spent SCUBA diving to observe *H. nicaraguensis* in situ.

Penn State University **1997**

- Ph.D. student in the Ecology Program with an emphasis on fish systematics; degree plan postponed indefinitely.
- Planned dissertation topic: Clarification of the taxonomic relations between three cichlid genera in Lake Malawi, Africa: A morphological and behavioral comparison of *Tyrranochromis, Nimbochromis,* and *Exochromis* species (Pisces: Cichlidae).

B.S. in Marine Biology and Marine Fisheries (double major) **1994**
Texas A&M University at Galveston

Student worker in the microbiology lab (1991-1994)

- Studied the ecology of *Vibrio vulnificus* in Galveston Bay oysters, sediment, suspended particulate matter, and seawater through the year; work included weekly collection of samples and detection of bacteria via ELISA MPN procedures.
- Monitored total and fecal coliform levels in portions of Galveston Bay and Gulf Coast waters.
- FDA certified analyst for the bacteriological examination of shellfish and seawater (1993-1994)

Scholarships and Awards

- TAMUG Merit Scholarship (1993-94): competitive scholarship through Texas A&M University
- Texas Association of Environmental Professionals competitive scholarship (1993-94)
- Academic Excellence Award (1992-93): competitive scholarship through Texas A&M University
- Ricker Scholarship (1989-90, 1990-91, 1991-1992): competitive scholarship through Texas A&M University
- Who's Who Among Students in American Universities and Colleges (1993)

TEACHING EXPERIENCE

Lecturer: Introduction to Microbiology Lab course 2012 to present
Texas A&M University at Galveston

Instructor: Introduction to Microbiology Lab course 1999-2012
Texas A&M University at Galveston

Graduate Teaching Assistant: Ichthyology 1997
Penn State University

Volunteer Instructor: Sea Camp 1993-1994
Texas A&M University at Galveston

Lab Instructor: Microbiology section of Scientific Methods course 1993-1994
Texas A&M University at Galveston

COMMITTEES

TAMUG Environmental Council member 2013-present

PUBLICATIONS

Brinkmeyer, R., R.M.W. Amon, J.R. Schwarz; T. Saxton, D. Roberts, S. Harrison, N. Ellis, J. Fox, K. DiGuardi, **M. Hochman**, S. Duan, R. Stein, and C. Elliot. 2015. Distribution and persistence of Escherichia coli and Enterococci in stream bed and bank sediments from two urban streams in Houston, TX. *Science of the Total Environment* 502: 650-658.

Baumeister, L., **M.E. Hochman**, J.R. Schwarz, and R. Brinkmeyer. 2014. Occurrence of Vibrio vulnificus and toxigenic Vibrio parahaemolyticus on sea catfishes from Galveston Bay, Texas*. J. Food Prot*., 77(10): 1784-1786.

Walton, W.C., C. Nelson, **M. Hochman** and J. Schwarz. 2013. Preliminary study of transplanting as a process for reducing levels of *Vibrio vulnificus* and *Vibrio parahaemolyticus* in shellstock oysters. *J. Food Prot.* 76(1): 119-123.

Brinkmeyer, R., L. Gilbert, **M. Hochman** and J.R. Schwarz. Occurrence of *Vibrio vulnificus* and *Vibrio parahaemolyticus* on hardhead and gaff top catfish in Galveston Bay: Implications for human infections. In preparation for submission to Appl. Environ. Microbiol.

Brinkmeyer, R., **M. Hochman** and J.R. Schwarz. Seasonal abundance of *Vibrio vulnificus* and *Vibrio parahaemolyticus* in Galveston Bay oysters: A multi-year comparison of traditional culture and quantitative PCR methods. In preparation for submission to J. Shellfish Research.

Schwarz, J.R., R. Bielby, S. Burkett, J. DiGialleonardo, C. Fallin, D. Hochman, M. Lin, J. McAuliffe, **M. Schweighofer**, R.W. Vanoy and L. Wolfe. 2000. *Vibrio vulnificus* and *Vibrio parahaemolyticus*: Distribution and population densities of pathogenic and non-pathogenic strains. Proc. 25th Anniversary Meeting, Seafood Science and Technology. 11 pp.

Schwarz, J.R., R. Bielby, S. Burkett, D. Hochman, M. Lin, **M. Schweighofer** and L. Wolfe. 1999. Effects of rapid chilling on *Vibrio vulnificus* populations in oyster shellstock. Report to U.S. Food and Drug Administration and Interstate shellfish sanitation conference. 15 pp.

Gottlieb, S.J. and **M.E. Schweighofer**. 1996. Oysters and the Chesapeake Bay ecosystem: A case for exotic species introduction to improve environmental quality? *Estuaries* 19(3): 639-650.

Van den Berghe, E.P., B.A. Murry, **M.E. Schweighofer** and J. Hale. 1995. Mariposas de la Laguna de Apoyo (Butterflies of Lake Apoyo). *Rev. Nica. Ent.* 34:33-39.

PRESENTATIONS

Hochman, M.S. *Vibrio* Validation and Verification Lab Procedures. Presented at the Gulf and South Atlantic States Shellfish Conference, Biloxi, MS. 2017.

Spaulding, K., D. Roberts, M. Hochman, and J.R. Schwarz. Monitoring concentrations of *Vibrio vulnificus* and *Vibrio parahaemolyticus* in Galveston Bay Oysters: A multi-year study. Presented in poster session by K. Spaulding and D. Roberts: Texas A&M University at Galveston 2nd Annual Student Research Symposium. 2007.

Schweighofer, M.E. and K.R. McKaye. Females working harder? The "hole" story of *Hypsophrys nicaraguensis*. Presented in contributed paper session by M.E. Schweighofer: National Animal Behavior Society Annual Meeting. 1996.

Gottlieb, S.J. and M.E. Schweighofer. Oysters and the Chesapeake Bay ecosystem: A case for exotic species introduction to improve environmental quality? Presented in poster session by S.J. Gottlieb: Estuarine Research Federation Annual Meeting. 1995.

Schwarz, J.R., R.W. Vanoy, M.E. Schweighofer and C. Fallin. Seasonal occurrence and survival of *Vibrio vulnificus* in Texas estuarine waters. Presented in poster session by J.R. Schwarz: Gordon Research Conference on Applied and Environmental Microbiology. 1993.