

Curriculum Vitae for Stephen C. Wagner

Education:

- 1986-1993 **CLEMSON UNIVERSITY** Clemson, SC
Ph.D. in Agronomy (Soil Microbiology).
Dr. Horace D. Skipper, Advisor.
- 1982-1984 **NORTH CAROLINA STATE UNIVERSITY** Raleigh, NC
M.S. in Microbiology.
Dr. Gerald H. Elkan, Advisor.
- 1978-1982 **HEIDELBERG COLLEGE** Tiffin, Ohio
B.S. in Environmental Biology.
Dr. Percy L. Lilly, Advisor.

Experience:

- 1996-present **STEPHEN F. AUSTIN STATE UNIV.** Nacogdoches, TX
Professor: Microbiologist responsible for teaching lecture and laboratory sections in Planetary and Space Biology (for teachers), Introductory Biology for Non majors, Microbiology, Cell Biology, Microbial Ecology, and Industrial Microbiology. Responsible for conducting research in microbial ecology and biology education and directing undergraduate and graduate student research.
- 1994-1996 **USDA-ARS SO. WEED SCIENCE LABORATORY** Stoneville, MS
Postdoctoral Research Associate: Microbiologist/Soil Scientist responsible for planning, initiating, and conducting research on herbicide biodegradation, bioavailability, and sorption.
- 1985-1994 **CLEMSON UNIVERSITY** Clemson, SC
Agricultural Science Associate: Planned, supervised, and analyzed laboratory and field research projects in soil microbiology labs.
- 1985 **OAK RIDGE RESEARCH INSTITUTE** Oak Ridge, TN
Staff Microbiologist: Member of a team of scientists who were studying the microbial ecology of hazardous waste spill sites.
- 1982-1984 **NORTH CAROLINA STATE UNIV.** Raleigh, NC
Graduate Research Assistant

Courses Taught:

Concepts of Biology	Microbial Ecology
Planetary and Space Biology (for teachers)	Industrial Microbiology
Applied and Environmental Microbiology	Microbial Diversity
Biology for Teachers	Cell Biology
General Microbiology	Botany (lab)
Prenursing Microbiology	Zoology (lab)

Grants:

- A. Undergraduate Faculty Travel Award. 1998. \$400 by American Society for Microbiology.
- B. Texas Microbial Discovery Workshop. 1999. \$9419 by American Society for Microbiology and Waksman Foundation.
- C. Eisenhower Grant Program (Instructor). 1999-2000. \$74,783
- D. Bioremediation of an Environmentally Impaired Site at a Polymer and Hydrocarbon Processing Plant Located at Kilgore, Texas. 1998-2000. \$46,000 by Baker Hughes, Inc.
- E. Teacher Science Workshops. 2001-2002. \$450 by John Wiley and Sons Publishers and McGraw Hill Companies.
- F. SFASU Undergraduate Preparation for Undergraduate Educator Readiness NASA Opportunities for Visionary Academics (SUPERNOVA). 2001-2005. \$35,000 by National Aeronautics and Space Administration.
- G. Angelina Aerospace Science for Educators Initiative. Texas Teacher Quality Grant. 2003-2005. \$79,000 by Texas Higher Education Coordinating Board and U.S. Department of Education. 2
- H. Angelina Aerospace Science for Educators Initiative Phase II. Texas Teacher Quality Grant. 2006-2007. \$85,000 by Texas Higher Education Coordinating Board and U.S. Department of Education.
- I. Angelina Aerospace Science for Educators Initiative Phase III. Texas Teacher Quality Grant. 2007-present. \$87,000 by Texas Higher Education Coordinating Board and U.S. Department of Education.
- J. Angelina Nacogdoches Partnership Phase I. Texas Teacher Quality Grant. 2008-2009. \$87,000 by Texas Higher Education Coordinating Board and U.S. Department of Education.
- K. Angelina Nacogdoches Partnership Phase II. Texas Teacher Quality Grant. 2009-2012. \$300,000 by Texas Higher Education Coordinating Board and U.S. Department of Education.
- L. Acquiring, Evaluating and Promoting Salt- and Hurricane-Tolerant Plant Materials for Galveston Island. 2015-present. \$5500 by Moody Foundation.
- M. Effect of Mycorrhizal Fungi on the Growth of Plants Growing in Soils with Elevated Salt. 2016. \$1500 by SFASU Research and Sponsored Programs (minigrant).

Publications:

1. **Wagner, S.C.** 2016. "Connect" Online Study Tutorial for Harley's Microbiology Lab Manual 9th Edition. McGraw Hill Higher Education, New York.
2. **Wagner, S.C.** 2015. LearnSmart Online Tutorial for Nester Microbiology. A Human Perspective. McGraw Hill Higher Education, New York.
3. **Wagner, S.C.** 2014. LearnSmart Online Tutorial for Cowan's Microbiology 3rd Edition. McGraw Hill Higher Education, New York.
4. **Wagner, S.C.** 2014. "Connect" Online Study Tutorial for Prescott's Microbiology 9th Edition. McGraw Hill Higher Education, New York.
5. Taylor, J., **S.C. Wagner**, and S. Canterbury. 2014. Cooking from Scratch: Development of Inquiry Based Activities for the General Microbiology Laboratory. Background Research Paper No. 37. National Study of Education in Undergraduate Science. [http://education.ua.edu/wp-content/uploads/2014/01/Background_Research_Paper_No__37_postreview1.pdf]
6. **Wagner, S.C.**, R. Havner, and J. Taylor. 2012. Connecting Undergraduates to the Work of Minority Scientists. Background Research Paper No. 18. National Study of Education in Undergraduate Science. [<http://nseus.org/wp-content/uploads/2012/02/Background-Research-Paper-No.-18.pdf>]
7. **Wagner, S.C.** 2011. Biological nitrogen fixation. Nature Education Knowledge. 2(11):14.
8. **Wagner, S.C.** 2010. Keystone species. Nature Education Knowledge. 1(11):3.
9. **Wagner, S.C.**, D. McDonald, T. Watson, J. Taylor, and A. B. Sowards. 2009. The lichen/GIS project, empowering educators and their students to solve environmental problems. Journal of Microbiology and Biology Education. 10:1.
10. **Wagner, S.C.** and A. Sowards. 2009. Combined lecture laboratory course offers ideal setting for group learning. Strategies for Success. Pearson Publishing. Issue 49.
11. **Wagner, S.C.** 2008. Microbiology in jeopardy. Microbial Life Educational Resources, SERC Pedagogic Service Project (online, peer-reviewed educational resource depository) [<http://serc.carleton.edu/microbelife/teaching/games/examples/microbejeopardy.html>].
12. **Wagner, S.C.** 2008. George Washington Carver. Peanut man. 2008. BiosciEdNet, Digital Library Portal for Teaching and Learning in the Biological Sciences (online, peer-reviewed education resource depository) [<http://www.bioscienednet.org/portal>].
13. **Wagner, S. C.** 2005. From starter to finish; producing sourdough breads to illustrate the use of industrial microorganisms. American Biology Teacher. 67:96-101.
14. Johns, D., H. Williams, K. Farrish, and **S. Wagner**. 2004. Denitrification and soil characteristics of wetlands created on two mine soils in East Texas, USA. Wetlands. 24:57-67.
15. **Wagner, S.C.**, H. D. Skipper, F. Walley, and W. B. Bridges, Jr. 2001. Long-term survival of *Glomus claroideum* propagules from soil pot cultures under simulated conditions. Mycologia. 95:815-820.
16. **Wagner, S.C.**, and R. S. Stewart. 2000. Microbial Safari. Isolation and characterization of unknowns in an introductory microbiology laboratory. American Biology Teacher. 62:588-592.
17. Allen, C.A., and **S.C. Wagner**. 2000. Rhizosphere Activity of Cattail (*Typha latifolia*) and Spike Rush (*Eleocharis tuberculosa*) Inhabiting and Oil Spill. Texas J. Sci. 52:335-344.
18. Zablotowicz, R. M., R. E. Hoagland, and **S. C. Wagner**. 1998. 2-Nitroacetanilide as substrate for determination of aryl acylamidase activity in soils. Soil Biol. Biochem. 30:679-686.
19. **Wagner, S. C.**, and R. M. Zablotowicz. 1997. Utilization of Plant Material for Remediation of Herbicide-Contaminated Soils. p. 65-76. In E. L. Kruger, T. A. Anderson, and J. R. Coats (ed.) Phytoremediation of Soil and Water Contaminants. American Chemical Society Symposium Series 664, Washington DC.

20. **Wagner, S. C.**, and R. M. Zablotowicz. 1996. Effect of organic amendments on the bioremediation of cyanazine and fluometuron in soil. *J. Environ. Sci. Health B32*(1):37-
21. Reddy, K. R., M. A. Locke, **S. C. Wagner**, R. M. Zablotowicz, L. A. Gaston, and R. J. Smeda. 1995. Chlorimuron sorption and desorption kinetics in soils and herbicide-desiccated cover crop residues. *J. Agric. Food Chem.* 43:2752-2757.
22. **Wagner, S. C.**, R. M. Zablotowicz, L. A. Gaston, M. A. Locke, and J. Kinsella. 1995. Bentazon degradation in soil: Influence of tillage and history of bentazon application. *J. Ag. Food Chem.* 44: 1593-1598.
23. **Wagner, S. C.**, H. D. Skipper, and P. G. Hartel. 1995. A medium to study carbon utilization by bradyrhizobia strains. *Can. J. Microbiol.* 41:633-636.
24. **Wagner, S. C.**, R. M. Zablotowicz, M. A. Locke, R. J. Smeda, and C. T. Bryson. 1995. Influence of herbicide-desiccated cover crops on biological soil quality in the Mississippi Delta p. 86-89 *In* N. W. Buehring, and W. A. Kingery (eds.) *Proc. Southern Conservation Tillage Conference for Sustainable Agriculture*, Mississippi State Univ., Office of Agricultural Communication, Mississippi State, MS.
25. Zablotowicz, R. M., R. E. Hoagland, and **S. C. Wagner**. 1996. Effect of Saponins on the Growth and Activity of Rhizosphere Bacteria. p. 83-95. *In* G. R. Waller, Yamasaki (ed.) *Saponins Used in Food and Agriculture*. Plenum Press, New York.
26. **Wagner, S. C.**, and H. D. Skipper. 1993. Long term storage of bradyrhizobia in water. *Can. J. Microbiol.* 39:998-1001.
27. Mueller, J. G., H. D. Skipper, E. R. Shipe, L. W. Grimes, and **S. C. Wagner**. 1988. Intrinsic antibiotic resistance in *Bradyrhizobium japonicum*. *Soil Biol. Biochem.* 20:879-882.
28. Weiser, G. C., H. D. Skipper, E. R. Garner, and **S. C. Wagner**. 1988. Field screening for inefficient *Bradyrhizobium japonicum* strain exclusion. *Soybean Genetics Newsletter*. 15:119-121.
29. Skipper, H. D., J. G. Mueller, V. L. Ward, and **S. C. Wagner**. 1986. Microbial degradation of herbicides. p. 457-475. *In* N. D. Camper (ed.) *Research Methods in Weed Science*, Third Edition. Southern Weed Science Society, Champaign, Illinois.

Honor Societies and Awards:

Biosciences Education Network (BEN) Scholar

American Society for Microbiology Undergraduate Education Travel Award

Beta Beta Beta Biological Honor Society

Gamma Sigma Delta Agriculture Honor Society

Wilson Memorial Scholarship for Graduate Studies

1982 Who's Who Among Students in American Colleges and Universities

Professional Society Memberships:

American Society for Microbiology

National Association of Biology Teachers

Science Teachers Association of Texas