

## ***CURRICULUM VITAE***

**JULIE L. WHITBECK**

### **PERSONAL DATA**

Assistant Professor — Research

Biological Sciences  
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### **EDUCATIONAL RECORD**

- 1985 B.A. (Biology), *with Distinction*, Swarthmore College.
- 1994 Ph.D. Biological Sciences, Stanford University. Dissertation: “Effects of above- and belowground resource distribution on the ecology of vesicular-arbuscular mycorrhizas.”
- 1986 Biology of Tropical Plants summer field course, Fairchild Tropical Gardens, Harvard University.
- 1988 Tropical Ecology field course, Organization for Tropical Studies, Costa Rica.

### **PROFESSIONAL EXPERIENCE**

- 2000- Assistant Professor — Research, Biological Sciences, University of New Orleans
- 1996-2000 Assistant Professor, Dept. Ecology, Evolution & Organismal Biology, Tulane University
- 1993-1995 Postdoctoral Fellow in Root Biology, Pennsylvania State University. Growth & morphology of apple roots: genetic, climatic and edaphic factors; Effects of tillage practices on mycorrhizal function in agricultural ecosystems; Roles of endo-mycorrhizal hyphae in propagation of the symbiosis. Developed and taught graduate seminar in Scientific Creativity. Funded via NSF/DOE/USDA training grant in Root Biology to H. Flores et al.
- 1987-1993 Research Assistant, Stanford University. Projects apart from dissertation research: Effects of harvester ant mounds on mycorrhizal associations and plant distribution in a serpentine grassland; Ecophysiology of Mexican vines, trees & cacti (several collaborative projects), Effects of elevated CO<sub>2</sub> on California grassland ecosystems.
- 1988-1991 Teaching Assistant, Stanford University. Ecology and Evolutionary Biology, Ecology and Evolutionary Biology laboratory, Ecosystems of California, Plant Adaptations.
- 1985-1987 Technician / Research Assistant, Harvard Forest, Harvard University, with Dr. J.G. Torrey. Work included studies on 1)the ecology of nitrogen-fixing trees in New England, 2)control of the development of nitrogen-fixing actinorhizal symbioses, 3)effects of oxygen environment on the physiology of actinorhizal plants (with Dr. W.B. Silvester), and 4)attempts towards independent culture of arbuscular mycorrhizal fungi (with Dr. B. Mosse).
- 1984-1985 Research Assistant, Swarthmore College & Marine Biological Laboratory, Woods Hole, with Dr. M.B. Saffo. Biochemical interactions between an ascidian tunicate and its protist endosymbiont.

**PUBLICATIONS****Articles and book chapters**

- Silvester, W.B., J.L. Whitbeck, J.K. Silvester & J.G. Torrey. 1988. Growth, nodule morphology and nitrogenase activity of *Myrica gale* grown with roots at various oxygen tensions. Canadian Journal of Botany, 66:1762-1771.
- Gartner, B.L., S.H. Bullock, H.A. Mooney, V.B. Brown & J.L. Whitbeck. 1990. Water transport properties of vine and tree stems in a tropical deciduous forest. Am. J. Bot., 77:742-749.
- Lerdau, M., J. Whitbeck & N.M. Holbrook. 1991. Tropical deciduous forests: death of a biome. Trends in Ecology and Evolution, 6:201-202.
- Lerdau, M.T., N.M. Holbrook, H.A. Mooney, P.M. Rich and J.L. Whitbeck. 1992. Seasonal patterns of acid fluctuations and resource storage in the arborescent cactus *Opuntia excelsa* in relation to light availability and size. Oecologia, 92:166-171.
- Holbrook, N.M., J.L. Whitbeck & H.A. Mooney. 1995. Drought responses of tropical deciduous forest trees. In Seasonally Dry Tropical Forests, eds. H.A. Mooney, S.H. Bullock, E. Medina, Cambridge University Press.
- Eissenstat, D.M., C.E. Wells, R.D. Yanai and J.L. Whitbeck. 2000. Building absorptive roots in a changing environment: Implications for root longevity. New Phytologist, 147:33-42.
- Whitbeck, J.L. Effects of light intensity on vesicular-arbuscular mycorrhiza development in *Inga coruscans*. Biotropica, In press.

**Book reviews**

- Baer, P. and J. Whitbeck. 1998. Earthly Goods: Environmental Change and Social Justice, FO Hampson and J Reppy eds — a Review. Quarterly Review of Biology, 73:381.

**Manuscripts in preparation**

- Whitbeck, J.L. and D.M. Eissenstat. On the plasticity of root morphology in apple (*Malus*): response to soil moisture. *submitted* to Canadian Journal of Botany.
- Whitbeck, J.L. Mycorrhizal response to elevated atmospheric carbon dioxide in two California grasslands, *in prep.*
- Whitbeck, J.L., P.M. Rich, V.B. Brown, B.L. Gartner & H.A. Mooney. Growth and photosynthesis of vines in a tropical deciduous forest, Mexico, *in prep.*
- Whitbeck, J.L. Phenology and distribution of mycorrhizas in a serpentine annual grassland, *in prep.*
- Whitbeck, J.L. Vesicular-arbuscular mycorrhizal response to crossed resource gradients in *Hemizonia luzulaefolia*, *in prep.*
- Whitbeck, J.L. Effects of tillage practices on the function of mycorrhizas in a low-input maize agroecosystem. *in prep.*
- Whitbeck, J.L., J. Barmore, J. Carroll and B. Stevens. Impact of long-term heavy-metal pollution on the productivity and community structure of a hardwood bottomland forest. *in prep.*
- Whitbeck, J.L., M. Kambhampati, D. Bageon, D. Brown and E. Florian. Impacts of soil lead contamination on the growth of radish and buckwheat. *in prep.*
- Eissenstat, D.M., J.L. Whitbeck, R.J. Crawford, and D.S. Achor. The relation of root morphology to root system function: Field investigations in apple and citrus. *in prep.*

**Published abstracts**

- Whitbeck, J.L. 1989. Effects of light intensity on vesicular-arbuscular mycorrhiza development in *Inga coruscans*. Bulletin of the Ecological Society of America, 70(S):296.

- Gartner, B.L., H.A. Mooney, S.H. Bullock, J.L. Whitbeck & V.B. Brown. 1989. Stem hydraulic conductivities of vines vs. trees. *American Journal of Botany*, 76(S):35.
- Lerdau, M.T., N.M. Holbrook, H.A. Mooney, P.M. Rich & J.L. Whitbeck. 1991. Partitioning of resource acquisition by the arborescent cactus *Opuntia excelsa* growing in a seasonal dry forest. *Bulletin of the Ecological Society of America*, 72(S):172.
- Whitbeck, J.L. 1992. Three-dimensional analysis of mycorrhizae and nutrient availability in adjacent serpentine and greenstone grasslands. *Bulletin of the Ecological Society of America*, 73(S):386.
- Whitbeck, J.L. 1993. Mycorrhizal response to elevated CO<sub>2</sub> in serpentine grassland communities. *Bulletin of the Ecological Society of America*, 74(S):484.
- Whitbeck, J.L. 1994. Vesicular-arbuscular mycorrhiza response to crossed carbon and phosphorus resource gradients. *Bulletin of the Ecological Society of America*, 75(S):247.
- Whitbeck, J.L. 1995. Effects of tillage practices on mycorrhiza development in a low-input maize agroecosystem.. *Bulletin of the Ecological Society of America*, 76(S):401.
- Whitbeck, J.L. and D.M. Eissenstat. 1996. On the plasticity of root morphology in apple (*Malus*): response to soil moisture. *Bulletin of the Ecological Society of America*, 77(S):477.
- Whitbeck, J.L., J. Barmore, J. Carroll and B. Stevens. 1997. Impact of long-term heavy metal pollution on hardwood bottomland forest plant community structure and productivity. *Bulletin of the Ecological Society of America*, 78(S):330.
- Whitbeck, J.L., J. Barmore and M.D. King. 1998. Are impacts of soil contamination on productivity and diversity linked or distinct? *Bulletin of the Ecological Society of America*, 79(S):228.
- Whitbeck, J.L. and X. Yao. 1999. Influence of soil water content on fine root distribution in a bottomland hardwood forest. *Bulletin of the Ecological Society of America*, 80(S): 322.
- Baer, P.G. and J.L. Whitbeck, 1999. Modeling the impact of changing hydroperiod on belowground carbon pools and fluxes in bottomland hardwood forest. *Bulletin of the Ecological Society of America*, 80(S): 225.

#### ***Oral and poster presentations at professional meetings***

- Effects of light intensity on vesicular-arbuscular mycorrhiza development in *Inga coruscans*. J.L. Whitbeck. Ecological Society of America, Toronto, Ontario, August 1989.
- Stem hydraulic conductivities of vines vs. trees. B.L. Gartner, H.A. Mooney, S.H. Bullock, J.L. Whitbeck & V.B. Brown. Botanical Society of America, Toronto, Ontario, August 1989.
- Phenology of vesicular-arbuscular mycorrhizas in a serpentine annual grassland. J.L. Whitbeck. Eighth North American Conference on Mycorrhizae (NACOM), Jackson, WY, Sept. 1990.
- Partitioning of resource acquisition by the arborescent cactus *Opuntia excelsa* growing in a seasonal dry forest. M.T. Lerdau, N.M. Holbrook, H.A. Mooney, P.M. Rich & J.L. Whitbeck. Ecological Society of America, San Antonio, August 1991.
- Three-dimensional analysis of mycorrhizae and nutrient availability in adjacent serpentine and greenstone grasslands. J.L. Whitbeck. Ecological Society of America, Honolulu, August 1992.
- Mycorrhizal response to elevated CO<sub>2</sub> in two California grassland ecosystems. J.L. Whitbeck. Belowground Responses to Elevated Atmospheric CO<sub>2</sub>, Univ. of Michigan Biological Station, May 1993.
- Mycorrhizal response to elevated CO<sub>2</sub> in serpentine grassland communities. J.L. Whitbeck. Ecological Society of America, Madison, August 1993.
- Effects of crossed resource gradients on mycorrhiza development in the annual herb *Hemizonia luzulaefolia*. J.L. Whitbeck. Ninth North American Conference on Mycorrhizae (NACOM), Guelph, Ontario, August 1993.

- Vesicular-arbuscular mycorrhiza response to crossed carbon and phosphorus resource gradients. J.L. Whitbeck. Ecological Society of America, Knoxville, August 1994.
- Effects of tillage practices on the function of mycorrhizas in a low-input maize agroecosystem. J.L. Whitbeck. Soil Ecology Society, Fort Collins, March 1995.
- Effects of tillage practices on mycorrhiza development in a low-input maize agroecosystem.. J.L. Whitbeck. Ecological Society of America, Snowbird, August 1995.
- On the plasticity of root morphology in apple (*Malus*): response to soil moisture. J.L. Whitbeck and D.M. Eissenstat. Ecological Society of America, Providence, August 1996.
- Effects of long-term heavy metal pollution on mycorrhiza establishment and the mycorrhizal fungal community in a bottomland hardwood forest. J.L. Whitbeck. Soil Ecology Society, Manhattan, May 1997.
- Impact of long-term heavy metal pollution on hardwood bottomland forest plant community structure and productivity. J.L. Whitbeck, J. Barmore, J. Carroll and B. Stevens. Ecological Society of America, Albuquerque, August 1997.
- The relation of root morphology to root system function: Field investigations in apple and citrus. D.M. Eissenstat, J.L. Whitbeck, R.J. Crawford, and D.S. Achor. Tree Structure and Function: The Supporting roots, Bordeaux, France, July 1998.
- Are impacts of soil contamination on productivity and diversity linked or distinct? J.L. Whitbeck, J. Barmore and M.D. King. Ecological Society of America, Baltimore, August 1998.
- Phytoremediation of lead-contaminated sand and soil using *Fagopyrum esculentum* (buckwheat). D. Bageon, J. Whitbeck, M.S. Kambhampati and E. Florian. DOE/EPSCoR and LAMP Conference, Baton Rouge, March, 1999. [poster won 2<sup>nd</sup> prize for student presentation]
- Phytoremediation of lead-contaminated sand and soil using *Raphanus sativus* (radish). D. Brown, M.S. Kambhampati, J. Whitbeck and E. Florian. DOE/EPSCoR and LAMP Conference, Baton Rouge, March, 1999. [poster won 1st prize for student research presentation]
- How does a hydrologic gradient influence fine root distribution in a bottomland hardwood forest? J. Whitbeck, X. Yao and R. Pittman. Soil Ecology Society, Chicago, May 1999.
- Influence of soil water content on fine root distribution in a bottomland hardwood forest. J. Whitbeck and X. Yao. Ecological Society of America, Spokane, August 1999.
- Modeling the impact of changing hydroperiod on belowground carbon pools and fluxes in bottomland hardwood forest. P.G. Baer and J.L. Whitbeck. Ecological Society of America, Spokane, August 1999.

#### *invited lectures/seminars*

- 1989 Estación de Biología Chamela (UNAM), México. Workshop on Ecology of Tropical VA Mycorrhizas, "Mycorrhizal response to light environment in a wet tropical forest."
- 1990 Stanford University, Jasper Ridge Research Seminar, "Mycorrhizas in a serpentine grassland."
- 1990 Stanford University, Native Forests of the Americas Conference, "Deforestation and Global Change."
- 1992 Stanford University, Jasper Ridge Research Seminar, "Three-dimensional analysis of mycorrhizae and nutrient availability in adjacent serpentine and greenstone grasslands."
- 1993 Pennsylvania State University, "Mycorrhizal response to elevated CO<sub>2</sub> in serpentine grassland communities."
- 1995 Tulane University, Dept. of Ecology, Evolution and Organismal Biology, "Plant responses to resource environment: Perspectives from the Root Zone."
- 1996 Loyola University of New Orleans, Biology Department, "Plant responses to resource environment: Perspectives from the Root Zone."

- 1996 Organization for Tropical Studies, Costa Rica, "Mycorrhizas in tropical ecosystems."
- 1996 Southeastern Louisiana University, Biology Department, "Plant responses to resource environment: Perspectives from the Root Zone."
- 1997 University of Georgia, School of Forest Resources, "Root system responses to the environment: compelling patterns & intriguing questions."
- 1997 Clean Enough? conference, University of New Orleans, "Impact of long-term heavy metal pollution on hardwood bottomland forest plant community structure and productivity."
- 1997 USFS Southern Institute of Forestry, Mississippi, "Root responses to stress — orchards and forests."
- 1998 National Wetlands Research Lab, USGS, Lafayette, Louisiana, "Are the impacts of soil contamination on productivity and diversity linked or distinct? — Bottomland hardwood response to refinery spoil."
- 2000 Biological Sciences, University of New Orleans, "Can rooting underground shed light on ecosystem processes?"

### COURSES TAUGHT AT TULANE

- |             |             |   |
|-------------|-------------|---|
| 1996 Spring | EEOB 666    | Restoration Ecology   |
| 1996 Fall   | EEOB 404-01 | General Ecology   |
|             | EEOB 404-4x | General Ecology laboratory (2 sections)                       |
|             | EEOB 496-xx | Undergraduate Directed Studies (3 different student projects) |
|             | EEOB 710    | Topics in Plant Ecology (4 students)                          |
| 1997 Spring | EEOB 101    | Diversity of Life   |
|             | EEOB 611    | Tropical Ecology  |
|             | COLL        | Yucatan Colloquium (participating faculty)                    |
|             | EEOB 496-xx | Undergraduate Directed Studies (2 different student projects) |
| 1997 Fall   | EEOB 404-01 | General Ecology   |
|             | EEOB 404-4x | General Ecology laboratory (2 sections)                       |
|             | EEOB 602    | Plant Ecology   |
|             | EEOB 496-xx | Undergraduate Directed Studies (2 different student projects) |
|             | EEOB 710    | Graduate directed study (1 student)                           |
| 1998 Spring | EEOB 607    | Restoration Ecology   |
|             | EEOB 496    | Undergraduate Directed Study (1 student)                      |
|             | EEOB 710    | Graduate Directed Study (1 student)                           |
| 1998 Fall   | EEOB404-01  | General Ecology   |
|             | EEOB 404-4x | General Ecology laboratory (2 sections)                       |
|             | EEOB 496-xx | Undergraduate Directed Studies (1 student project)            |
|             | EEOB 710    | Graduate directed study (1 student)                           |
| 1999 Spring | EEOB 611    | Tropical Ecology  |
|             | EEOB 666-01 | Global Environmental Change                                   |
|             | EEOB 710    | Graduate directed study (1 student)                           |
| 1999 Fall   | EEOB404-01  | General Ecology   |
|             | EEOB 404-4x | General Ecology laboratory (2 sections)                       |
|             | EEOB 602    | Plant Ecology   |
|             | EEOB 496-xx | Undergraduate Directed Studies (1 student project)            |
|             | EEOB 710    | Graduate directed study (1 student)                           |
| 2000 Spring | EEOB 607    | Restoration Ecology   |
|             | EEOB 496-xx | Undergraduate Directed Studies (1 student project)            |

Supervised three **undergraduate Honors theses**, Jenny Carroll (N '98), M. Danielle King (N '98) and Tihisia Boshart (in progress, N'01), and served on three other Honors thesis committees (A. Medori, N '98; R. Pittman, ENG '99, J. Kaban, N'00).

### **Graduate Students:**

Philip Shannin, M.S. 1997.

Marcus Wasilevich, a fifth year graduate student (F'00), and Ph.D. candidate as of Spring '99; Gantt Boswell, a returning graduate student, began his fourth year of Ph.D. program work in Fall 2000.

Xiaoli Yao, who entered the Ph.D. program in Fall 1998 and stayed for only one year;

Patrick Herron, who entered the MS program in Fall 1999 as an RA with Whitbeck's tropical dry forest root ecology project, but left upon Whitbeck's leaving Tulane.

Served on four completed doctoral committees (Dana Thomas, Weixin Dong, Rebecca Fry, Martha Glasgow) and one completed thesis master committee (Amy Bennett) at Tulane and presently serve on four Tulane doctoral committees (Gantt Boswell, Christopher Brown, Mike Tercek & Marcus Wasilevich).

## **SERVICE**

### **University service**

1996-97 (and Spring semester '96)

Tulane representative to the Organization for Tropical Studies Board of Directors  
Attended BOD meeting 3/97; advertised OTS course opportunities to Tulane graduate students; faculty resource person to OTS Tropical Ecology field course.

Center for Bioenvironmental Research (CBR) CBR Scholars Committee (member, Chair beginning 1/97)

Established (1996) and revised (1997) fellowship application, evaluation and administration processes; organized committee meetings; addressed special situations and fellowship infringements.

Mesoamerican Ecology Institute Revitalization Working Group — co-Chair

Identified and organized group of 12 faculty interested in re-building research and training expertise in ecology, earth and environmental disciplines in Latin America and the Caribbean; wrote statement of MEI mission and goals and identified projects to achieve short- and long-term goals, including Yucatan Colloquium course Spring '97.

Committee on Newcomb Center Institute for Research on Women and Gender, leave-replacement member (Fall '96)

Freshman [sic] advisor for Newcomb College

1997-98

Tulane representative to the Organization for Tropical Studies Board of Directors  
Attended BOD meeting 3/98; advertised OTS course opportunities to Tulane graduate students; advertised new OTS undergraduate course to Tulane undergraduates; hosted visit of OTS Executive Director.

Center for Bioenvironmental Research (CBR) CBR Scholars Committee (Chair)

Evaluated fellowship applications; organized committee meetings; addressed special situations and fellowship infringements.

Mesoamerican Ecology Institute (Acting Director)

Organized and facilitated meetings of MEI faculty group; organized workshop on "Status of Biosphere Reserves in the Yucatan", bringing 5 experts to campus;

supported OTS course tuition for 2 graduate students; provided summer research grants to 3 graduate students.

Center for Latin American Studies (CLAS), Executive Committee (and de facto Search Committee for CLAS Director)

Revised CLAS Mission statement; clarified roles of Executive Committee in CLAS organizational structure; conducted extensive search for new Director.

CLAS Grievance Committee

Met to arbitrate dispute emanating from CLAS course.

Institute for Earth and Ecosystem Sciences - founding member and steering committee

Motivated by our collective research interests and the productivity of our collaborative research, we developed an organizational framework for this research and training institute; we also developed a graduate training program.

1998-99

Tulane representative to the Organization for Tropical Studies Board of Directors

Attended BOD meeting 3/99; advertised OTS course opportunities to Tulane graduate students; advertised new OTS undergraduate course to Tulane undergraduates; worked with Undergraduate Semester Abroad program to knit OTS undergraduate program into Tulane semester abroad opportunities.

Center for Latin American Studies (CLAS), Executive Committee

Worked with new Director to initiate new programs; conducted review of CLAS.

Neotropical Ecology Institute (previously Mesoamerican Ecology Institute)

Participant; worked with Undergraduate Semester Abroad program to knit OTS undergraduate program into Tulane semester abroad opportunities.

Institute for Earth and Ecosystem Sciences - founding member and steering committee

1999-2000

Tulane representative to the Organization for Tropical Studies Board of Directors

Advertised OTS course opportunities to Tulane graduate students and undergraduates.

Center for Latin American Studies (CLAS), Executive Committee

Worked with Director to initiate new programs.

Neotropical Ecology Institute

Participant.

### **Department service**

1996-97 (and Spring semester '96)

EEOB Graduate Studies Committee

revised graduate examination process

drafted new "Procedures for Graduate Study"

organized EEOB T-shirt Design Contest

Examiner for 7 graduate comprehensive/competency examinations

EEOB Major Advisor for 2+ undergraduates

EEOB award presentation at Tulane College awards ceremony

1997-98

EEOB Graduate Studies Committee

Earth and Ecosystem Science (EES) graduate program working group

EEOB Seminar Series Organizer (Spring Semester 1998)

**Hathaway Lectureship Organizer**

- Peter Vitousek “Ecology and Global Environmental Change,” and “Causes and consequences of nutrient limitation in Hawaiian montane forests”
- more than 200 people attended the first lecture
- Vitousek met with students and with the Provost, to discuss the EES program

**Conery Lecture Organizer**

- Gary Hartshorn, Executive Director of OTS, “Why Tropical Forests are of Global Importance”
- Hartshorn met with students and with the Provost, to discuss what OTS courses and membership offer to Tulane students and faculty

EEOB organizing host for Southeastern Louisiana Ecologists and Evolutionary Biologists’ Spring Lecture and Crawfish Boil

Co-writer of successful (internal) computer technology for student education grant

Examiner for 5 graduate comprehensive/competency examinations

EEOB Major Advisor for 14+ undergraduates

EEOB award presentation at Newcomb College awards ceremony

1998-99

EEOB Graduate Studies Committee

- revised graduate examination process
- drafted new “Procedures for Graduate Study”

Examiner for 2 graduate comprehensive/competency examinations

EEOB Major Advisor for 10 undergraduates

1999-2000

EEOB Graduate Studies Committee

Examiner for 3 graduate comprehensive/competency examinations

EEOB Major Advisor for 10 undergraduates

**Professional service**

Professional Society Membership:

American Association for the Advancement of Science

American Institute of Biological Sciences

Association for Tropical Biology

Association for Women in Science

Ecological Society of America

Soil Ecology, Physiological Ecology and Education section affiliations

Organization for Tropical Studies

Society for Ecological Restoration

Soil Ecology Society

Union of Concerned Scientists

1996

- Association for Tropical Biology  
Symposium selection committee for 1997 Annual Meeting
- Ecological Society of America  
Chaired contributed papers session at annual meeting  
Judge of student presentations at annual meeting
- Organization for Tropical Studies  
Board of Directors  
Resource professor, OTS 96-3 Tropical Ecology course
- reviewed grant proposals for the US Department of Energy
- reviewed manuscripts for  
Annals of Botany (2)  
Ecological Applications (1)

1997

- Ecological Society of America  
elected Secretary of the Soil Section  
Judge of student presentations at annual meeting
- Organization for Tropical Studies  
Board of Directors
- reviewed grant proposals for the US Department of Agriculture  
Panel member — Fund for Rural America Program
- reviewed manuscripts for  
American Journal of Botany (1)  
Mycorrhiza (1)
- reviewed textbook ms for Prentice Hall publishers: A Primer of Community Ecology, by Peter Stiling

1998

- Ecological Society of America  
Secretary of the Soil Section
- Organization for Tropical Studies  
Board of Directors
- reviewed manuscripts for  
Annals of Botany (1)  
Biotropica (1)  
Biogeochemistry (1)

1999

- Ecological Society of America  
Secretary of the Soil Section
- Organization for Tropical Studies  
Board of Directors
- Soil Ecology Society  
Nominating Committee
- reviewed manuscripts for  
Biogeochemistry (1)  
Environmental Toxicology and Chemistry (1)

2000

- Ecological Society of America  
co-organized and co-chaired symposium on “The Rhizosphere” at annual mtg
- Organization for Tropical Studies  
Board of Directors
- reviewed manuscripts for  
Oecologia (1)  
Biotropica (1)  
ESA/UCS Gulf Coast Global Change report

### **Mentoring and Community outreach service**

- Louisiana Science Improvement Program (LaSIP) — Resource person for science teacher training in plant ecology and botanical techniques and pedagogy (March '97, June '97, Nov '97)
- Summer Program in Environmental Engineering and Science (SPEES) — faculty (1 week program to engage local 7th and 8th graders in environmental science and environmental engineering, June 1997)
- Louisiana Alliance for Minority Progress (LAMP) — “Impact of heavy-metal pollution on plant growth, production and survival” — Primary mentor for 10 week team project in my laboratory involving 2 minority institution undergraduates, 1 Tulane minority student assistant and Dr. M. Kambhampati of SUNO as a co-mentor fellow. (Summer 1998). Co-mentored one undergraduate during summer 1999 on a root imaging project. Mentoring undergraduate student Fall 2000 on a root ecology project.

### **RESEARCH SUPPORT FROM NON-UNIVERSITY SOURCES**

- 1996 US Department of Agriculture - SANRUE program: “Development of biological indicators of soil and plant health,” subcontract from Pennsylvania State University to Tulane University (\$4,150; 6/95 – 6/97)
- 1996 US Department of Energy: “Hazardous Materials in Aquatic Environments of the Mississippi River Basin: Identification of metal accumulators among the flora of contaminated wetlands and exploration of their uptake mechanisms,” (research initiation grant) Tulane University (\$26,220; 2/96 – 1/97)
- 1997 US Department of Energy: “Hazardous Materials in Aquatic Environments of the Mississippi River Basin, Field Core: Assessment of plant metal uptake -- population and productivity impacts,” (with H. Bart & G. Flowers -- funds listed support only my portion of the research) Tulane University (\$43,399; 2/97 – 1/98)
- 1997 Louisiana Board of Regents: “Recruitment of superior students to the field of ecosystem ecology,” (PI with T. Bianchi and H. Bart) Tulane University (\$64,000; 7/97 – 6/02)
- 1999 Andrew W. Mellon Foundation: “Linking root functional ecology to whole plant water relations in tropical dry forest — from species to community,” Tulane University/UNO (\$345,000; 7/99 – 6/02)
- 2000 National Institute for Global Environmental Change: " Effects of seasonal flooding and sea level rise on the relative contributions of plant roots and microbial respiration to soil CO<sub>2</sub> emission in a bottomland hardwood forest in southeast Louisiana," Univ. of New Orleans (\$348,715; 7/00 – 6/03)

**HONORS AND AWARDS**

- Newcomb College / Newcomb Fellows award, “Mentoring women in the field: Investigating the root ecology of bottomland hardwood forests”, Summer 1998
- Lilly Endowment Teaching Fellowship, 1997-1998
- Faculty Enrichment Seminar for Environmental Education participant, May 1996
- NSF/USDA/DOE Postdoctoral Fellowship, 1993-1995
- Carnegie Institute of Washington Research Assistantship, 1991-1993
- Organization for Tropical Studies post-course grant, Jessie Smith Noyes Foundation, 1988
- Elected to *Sigma Xi* 1985

**Recent (past 48 months) collaborators**

Julie Denslow, Louisiana State University & USFS  
Jay Gullede, Tulane University  
Marco V. Gutierrez, Univ. de Costa Rica  
N. Michelle Holbrook, Harvard University  
Oscar Rocha, Univ. de Costa Rica

**Graduate Students Advised**

Philip Shannin, Tulane, M.S. 1997  
Rebecca Fry, Tulane, Ph.D. 2000  
Marcus Wasilevich, Tulane, Ph.D. candidate  
Patrick Herron, Tulane, Ph.D. student  
Gant Boswell, Tulane, Ph.D. candidate

**Graduate and Postdoctoral Advisors**

Harold Mooney (Stanford)  
Peter Vitousek (Stanford)  
Roger Koide (Penn State)  
David Eissenstat (Penn State)