

CURRICULUM VITAE  
OF  
**KRISHNASWAMY JAYACHANDRAN**  
Earth and Environment Department

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**EDUCATION:**

- Ph.D.** Kansas State University, Manhattan, KS, Plant Pathology (Soil Microbiology), April 1991.
- M.Sc.** Tamil Nadu Agricultural University, Coimbatore, India, Agricultural Microbiology, December 1983.
- B.Sc.** Tamil Nadu Agricultural University, Coimbatore, India, Agriculture Sciences, May 1981.

**ACADEMIC EXPERIENCE:**

Dept. of Earth and Environment Florida International University, Miami	Professor (Soil Microbiology)	Aug 2010-present
Dept. of Earth and Environment Florida International University, Miami	PSM-EPM Program	Jan 2014-present
STEM Transformation Institute Florida International University, Miami	Founding Fellow	Jan 2015-present
Dept. of Earth and Environment Florida International University, Miami	Co-Director, Agroecology (Founding)	Aug 2005-present
Dept. of Earth and Environment Florida International University, Miami	Graduate Program Director	Aug 2008-2015
Dept. of Earth and Environment Florida International University, Miami	Associate Professor (Soil Microbiology)	Aug 2002-2010
The Honors College Florida International University, Miami	Fellow	Aug 2003-2009
The Honors College	Founding Director-SRAI	Aug 2003-2005

Florida International University, Miami

Dept. of Environmental Studies Florida International University, Miami	Graduate Program Director (Interim)	Aug 2003-Jan 04
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Dept. of Environmental Studies Florida International University, Miami	Assistant Professor	May 1996-2002
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National Laboratory for Agriculture & the Environment USDA-ARS, Ames, IA	Assistant Scientist	May 1991-1996
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Dept. of Plant Pathology Kansas State University, Manhattan, KS	Grad Res Assistant	Aug 1987-1991
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International Crops Research Institute for The Semi-Arid Tropics (ICRISAT) Hyderabad, India	Research Associate	Jan 1984–1987
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Dept. of Agrl Microbiology Tamil Nadu Agricultural University Coimbatore, India	Grad Res Assistant	Aug 1981–1983
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**EMPLOYMENT RECORD AT FLORIDA INTERNATIONAL UNIVERSITY:**

Professor	Aug 2010 – Present
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Associate Professor	Aug 2002 – 2010
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Assistant Professor	May 1996 – 2002
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**RESEARCH INTERESTS AND EXPERTISE:**

- Wetlands soil characterization.
- Restoration ecology.
- Nutrient cycling and soil quality in wetland and upland systems.
- Microbial diversity and activity in surface and subsurface soils.
- Pesticide degradation, transport, and potential groundwater contamination.
- Isolation and characterization of pesticide degrading microorganisms.
- Biocontrol of invasive plant species.
- Bioenergy and microbial hydrogen production.
- Marine and freshwater toxins and microbial degradation
- Pathogens tracking and remediation measures.
- Antibiotic resistance in the environment.
- Bioremediation (plant - microbe based system) of organic contaminants in soil and

- water.
- Physiology, biochemistry, molecular biology, and biological interactions of arbuscular-mycorrhizal (AM) fungi.

## **PROFESSIONAL HONORS, PRIZES, FELLOWSHIPS & SIGNIFICANT ACHIEVEMENT**

- Knowledge Exchange for Undergraduate STEM Education – Invitee by The White House Office of Science and Technology, NSF, DOE, USDA - 2016
- President’s Excellence Award for Agroecology Program 2016
- Faculty Excellence Advising and Mentoring Award 2015
- Founding Faculty – STEM Transformation Institute (2014-2017)
- Faculty Excellence Teaching Award 2012
- FIU-President’s Access and Equity Award 2011
- University’s Agroecology Program Excellence Award (Finalist) 2011 and 2013
- AAAS – On Call Scientist (2015 – present)
- Chair – Miami-Dades’s Agriculture & Natural Resources Council (2016 – present)
- Certificate of Appreciation by Senator Bill Nelson for promoting National Needs Fellows in Sustainable Agriculture and Natural Resource Sciences - 2011.
- Certificate of Appreciation by Senator Bill Nelson for promoting multicultural undergraduate scholars education in agriculture and environmental sciences – 2009, 2016
- Certificate of Appreciation by USDA-NIFA Program Officer for planning and organizing Project Directors Conference – 2009.
- Certificate of Appreciation by the Office of American Society of Agronomy, Soil Science Society of America, and Crop Science Society of America for serving as Associate Editor for six years for the Journal of Environmental Quality – 2008.
- Certificate of Appreciation by Executive Publisher, Elsevier for the review and evaluation of more than 75 journal articles for Agriculture, Ecosystems & Environment – 2008.
- Certificate of Appreciation by Director of FIU Upward Bound Program for engaging 50 under-represented minority high school students on experiential learning at the Organic Garden.
- The Honors College Fellow (2003-2009)
- Founding Member and Director, The Honors College Student Research & Artistic Initiatives (2003-2005)
- Founding Member and Co-Director of Agroecology Program at Florida International University (<http://agroecology.fiu.edu>)
- People’s Garden Award by USDA (April 2010)
- Certificate of Appreciation from Agroecology and Garden Club (November 2010)
- Certificate of Appreciation from National University of Agriculture, Honduras

(November 2010)

- Certificate of Appreciation for participation in Latin American biofuel conference organized by OLADE – 2010.
- Established MOU between FIU and Tamil Nadu Agricultural University, Tamil Nadu, India – 2010.
- Establishing MOU between FIU and National University of Agriculture, Honduras – 2011.
- Establishing MOU between FIU and ISARA-Lyon Agroecology Program, France - 2014.
- National Research Panels (~30) for EPA and USDA
- FIU President’s Access & Equity Recognition Award (2009, 2010)
- National Academy of Biological Sciences (India) life membership
- *Phi Kappa Phi* Honors Society, 2005

### **PROFESSIONAL SERVICE:**

#### ***Research Review Panels:***

Panelist	National Council for Science and Environment (2002)
Panelist	Environmental Protection Agency (2002 and 2003) (Super Fund Sites Research Panels)
Panelist	EPA-STAR Fellowships (2004, 2005, 2006, 2007, 2010, 2012, 2014, 2015) Soil, Plant, Terrestrial Ecology, Bioenergy, and Pesticides Panels
EPA Site Reviewer	SouthEastern Louisiana University Research Site (2006)
Panelist	EPA – Ecosystem Services Research Panel (2009)
Panelist	USDA-CSREES-NRI- Soil Processes Panels (2007, 2008)
Ad-hoc Panelist	USDA-CSREES-MSP (2007)
Panelist	USDA-HSI (2010), USDA-HBCU (2011, 2015), USDA-WAMS (2014) USDA-ANNH (2016)
Panel Manager	USDA-SPECA and PD-STEP

### **COMMUNITY ENGAGEMENT AND OUTREACH ACTIVITIES:**

**As the Co-Director of the Agroecology Program**, I have been involved in various community outreach activities, in order to promote sustainable urban agriculture and community gardening in South Florid, by providing expert advice, recruiting student volunteere for organizations, conducting FIU garden tours, USDA Research Station and local organic farms tours, etc.

- Site identification for FIU Organic Garden, laying out first garden plots for teaching, experiential learning at the garden, establishing the shade-house facilities.
- Founding author and editor of Agroecology Biannual Newsletter – Cultivator.

- Urban League of Greater Miami: Site identification and planning a new community garden in Miami Downtown.
- Roots in the City Urban Farm in Miami Overtown: Student engagement, expert advise on vegetable production, and assistance with grant proposal development
- Glaser Organic Farm and Paradise Organic Farm: Placement of student interns to learn organic farming techniques and community engagements.
- TERRA Environmental Institute: Advise on setting up a new campus garden, student mentoring etc.
- Miami-Dade Senior High Schools: Network with selected six high schools in Miami Dade; summer internships to high school students, student mentoring on their school yard project and science fair competition and the school curriculum development; engaging students in annual symposia, student recruitment to FIU and high school teachers summer workshop etc.
- Established Agriculture and Environmental Immersion Day for several High School Students to create interest in agriculture and environmental education.
- Made in Miami-Dade Farmer's Market: Participation and community engagement in Sunday Farmers market lead by Commisioner Joe Martinez, Miami-Dade County.
- Miami-Dade's Agriscience and Natural Resources Education Advisory Committee: Advise on curriculum development, agriscience facilities at schools etc. Currently serving as the Chair of the committee.
- Member of Small Farmers Stakeholders Conference Organizing Committee in Florida.
- Advisory Board Member for ARN Foundation that helps Haiti Agriculture and Environmental issues.
- Judge: Fairchild Challenge Program for Miami-Dade Schools competition on environmental science education – for the past 10 years.
- Miami-Dade Science and Engineering Fair – Organized a community workshop on Agroecology Program, judged science competition, awarded four best science projects in Agroecology. 2010 - present
- Organized Agroecology Team for FAA judging 2012 –present
- Training army veterans and socially disadavnatged farmers in farming systems and nursery management. Laying out the significance of working with plant and soil that helps relieve stress from veterans.

**Development of Agricultural and Environment Science Research Center in Homestead:**

Assisted CASE and SEAS by providing teaching, research and outreach ideas for establishing an Agroecology Center (CASA) in Redland. Key role in preparation for acquiring several pieces of property in Homestead and developing them into an agricultural research center.

- Attended several meetings including several strategic planning meetings last five years with local farm Possom Trot, Dumond Conservatory, CASE Deans, SEAS Director, CASE development officer Paul Landrum and Mr. John Mills, the member of the CASE Advisory Board.
- Primary contact for Possum Trot Farm, and developmental activities towards agriculture education, research, and outreach.

- Contributing author for development of a Business Plan (Proposal for new Research Centers) for the Agroecology Center.
- Attending biweekly meetings on Tuesdays 9.30 – 10.30 with Paul Landrum to discuss various activities on food and agriculture.
- Established special programs teaching facilities and VeSFO office facilities at a 5 acre site – The Girls Home owned by John Mills.
- Developed series of non-credit workshops (special programs). Professional Horticulture Workshop and series of related workshops.
- International workshop on agroecology executed this summer followed by several other workshops.
- Serving as a primary coordinator for several activities related to food and agriculture initiatives.
- Prepared documents for the Dean to appear at Congress sub-committee on Agriculture and Biotechnology.
- Helping to relocate the fair grounds to Homestead area.
- Attended several fund raising events.

***Non-Academic Community Service***

Board of Directors for South Florida Tamil Sangam 2010-2012 (<http://www.sfts.org>)  
 Fund Raising for National MS Society by participating MS Bike Ride – 85 miles last four years.

Fund Raising through Sukeebhava organization to provide educational and medical help in souther part of India. Last four years.

**FUNDED RESEARCH ACTIVITIES:**

Agency	Research Project	Participation	Amount
USDA	Broadening Agriculture Science Education (BASE) for Hispanic Students through Florida – Texas – New Mexico Consortium September 2015-August 2019	PI	\$1,000,000
USDA	START NOW “Student Training in Agricultural Research Techniques by Novel Occupational Workshops” Consortium TAMUK-FIU-UTEP-UPRM September 2016-August 2020	FIU-PI	\$2,000,000
USDA	Innovative Curriculum for Agriculture Training and Career for Hispanics (iCATCH) September 2016-August 2020	Co-PI	\$2,000,000

USDA	Multicultural Scholars Program for Agriculture Majors at Florida International University January 2016-December 2020	PI	\$200,000
JC Tropicals	Dragon Fruits Research: Nutritional Qualities 2016	Co-PI	\$30,000
USDA	Veterans and Socially Disadvantaged Farmers Training (Two one year grants) 2014-2016	Co-PI	\$350,000
USDA	National Needs Fellows in Sustainable Agriculture and Natural Resources Sciences at Florida International University: An Interdisciplinary and Integrative Training Approach – Doctoral Students August 2015 – July 2020	PI	\$246,000
USDA	Training Multicultural Undergraduate Scholars in Agriculture and Environmental Sciences at Florida International University, January 2013 – December 2019.	PI	\$200,000
USDA	National Needs Fellows in Sustainable Agriculture and Natural Resources Sciences at Florida International University: An Interdisciplinary and Integrative Training Approach, January 2013 – July 2018.	PI	\$246,000
USDA (HSI) USDA	Florida-Caribbean Consortium for Agriculture Science Education at Florida International University FIU Lead Multicultural Scholars in Agriculture and Resource Science at FIU 2011-2016	CoPI	\$3.5 million
		PI	\$180,000
USDA	National Needs Fellow in Sust. Agriculture and Natural Resource Sciences at Florida International University: An Interdisciplinary Approach. January 2011-July 2014	PI	\$240,000
USDA	Biofuel Science Education for Under-Represented Students at Florida International University. August 2010 – July 2013	PI	\$290,000

Peace Corps	Establishment of Peace Corps Scholarship at Florida International University. 2008-09 and 2009-10	PI	\$21,900
FIU-CAS	Environmental Studies Colloquium Enhancement Award. 2008-09, 2009-10, 2010-11	PI	\$9,000
USDA	Training Multicultural Undergraduate Scholars in Agroecology at Florida International University: An Interdisciplinary Approach. January 2009 – December 2014	PI	\$150,000
USDA	Curriculum Enrichment, Instrumentation and Experiential Learning in Agroecology. August 2008 - July 2011	Co-PI	\$292,000
USDA	Internationalization of Environmental Studies Curriculum through Teaching and Research in Bio-fuel Production and Technology. August 2008 - July 2010	Co-PI	\$100,000
SFWMD	Discovery, Development and Evaluation of Native Microbial Biological Control Agents for Managing Old World Climbing Fern in South Florida. May 2008 – March 2010	PI	\$99,000
USDA	Multicultural Undergraduate Scholars in Agroecology At Florida International University. August 2007 – July 2012	PI	\$150,000
ENP	Biological control of invasive plant species in South Florida October 2002 – December 2008	PI	\$380,000
NIEH	Microbial Degradation of Brevetoxin – Isolation of Novel Bacteria. September 2006 – August 2009	PI	\$187,500
USDA	Curriculum Development and Capacity Building in Agroecology Sciences. August 2005-August 2008	Co-PI	\$240,000
USDA	Understanding Limits to Growth in International Agriculture and Opportunities for Sustainable Farming Systems. May 2006- April 2009	Co-PI	\$100,000
ILZRO	Silver Chemicals for Wood Preservation: Effect on Soil Biology. August 2003- December 2008	PI	\$45,000
ABS	Arbuscular-Mycorrhizal Colonization and Interaction with Endangered Plant Species, <i>Ziziphus celata</i> (Rhamnaceae). March 2003 – Dec. 2006.	PI	\$3,500



DOE	Natural Attenuation of Trichloro-Ethylene from contaminated soils and water from Savannah River Site and Oak Ridge – Support for the Mercury Center of Excellence (Microbial Structural and Functional Diversity). Feb. 2003 – Nov. 2005. (DOE Project through HCET {ARC}).	PI	\$90,000
ENP	Brazilian Pepper Suppression in the Soil Disposal Mounds in the Hole-in-the-Donut Pilot Restoration Program, Everglades National Park. October 2000 – September 2002.	PI	\$180,000
SDSWCD	Microbial Degradation of Pesticides in South Florida Soils. April 2000-March 2001.	PI	\$15,000
USDA	Determination of the movement of Agrochemicals in soils with Compost Amendments. April 2001 – June 2006	PI	\$132,000
FAO/WB	Bioremediation of Pesticides Contaminated Soils.	PI	\$6,000
ENP	Everglades National Park Tree Islands: Interactions of Vegetation, Hydrology, and Soils. August 2000-July 2003.	Co-PI	\$330,000
DOE	Bioremediation of TCE from contaminated soils and water from Savannah River Site. April 2002-March 2003. (DOE Project through HCET {ARC}).	PI	\$14,050
OSRA	Search for novel soil microorganisms from preserved sites of Florida. May 2001.	PI	\$4,000
ENP/SFWMD FDEP	Numerical Interpretation of Class III Narrative Nutrient Water Quality Criteria for the Everglades Wetlands. January 1996-2002.	Co- Investigator	\$599,000
ENP	Assessment of Marsh Vegetation Responses to Hydrological Restoration in Shark Slough. ENP. 1996-1999.	Collaborator	
BNP	Water Flow through Coastal Wetlands. 2001-2003	Collaborator	
USFW	Restoration of <i>Jacquemontia reclinata</i> to the South Florida Ecosystem. 1999-2001.	Collaborator	
USDA	A Multistate Project to investigate Microbial Role	Investigator	

in Land Management. (Consortium of 20 Soil Microbiologists from different regions in US). 2001-2005.

EPA	Development of Strategies for Biological Remediation of Pesticide Contaminated Sites 1994-96	Co-PI \$835,139
LCSA	Interactions of arbuscular mycorrhizal fungi in pesticides degradation. 1992-94	Co-PI \$40,000
EPA	Assimilative Capacity of Soil Microorganisms.1992-1995.	Co-PI \$750,000
USDA	Fate and Significance of Major Degradation Products of Atrazine	Co-PI \$120,000
USDA	Management System Evaluation Area (MSEA) for water Quality in Midwestern States: President's Initiative on Water Quality. 1991-1995	Res. Sci \$5million
NSF	A Mechanisms Regulating Phosphorus Cycling in Tallgrass Prairie. 1987-1991.	GRA

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## **PUBLICATIONS IN DISCIPLINE:**

\*Denotes publications/presentations with students.

\*\*Denotes corresponding author.

### ***Books:***

#### ***Dissertation and Thesis***

**Jayachandran, K.** Role of Vesicular-Arbuscular Mycorrhizae in Phosphorus Acquisition from Unavailable Phosphorus Sources. 1991., Ph.D. Thesis, 74 pp, Department of Plant Pathology, Kansas State University, Manhattan, KS

**Jayachandran K.** Studies on the Survey, Spore Germination and Inoculation of VA-Mycorrhizal Fungus on the Growth of Certain Crop Plants. 1983, M.Sc. Thesis, 123 pp, Department of Agricultural Microbiology, Tamil Nadu Agricultural University, Coimbatore, India

#### ***Refereed Articles Published:***

57. Shetty, Kateel G., Rivadeneira, Diana V\*. **Jayachandran, Krish**, and Walker, Donald M. Isolation and molecular characterization of fungal endophytic microbiome from conventionally and organically grown avocado trees in South Florida. *In Press Mycological*

## ***Progress***

56. Miles Medina\*, **Krishnaswamy Jayachandran**, Mahdev Bhat, and Alok Deoraj. 2015. Assessing plant growth, water quality, and economic effects from application of a plant-based aquafeed in a recirculating aquaponic system. **Aquaculture International**, vol 23: Numer 4. DOI 10.1007/s10499-015-9934-3
55. David Berthold\*, Nina De la Rosa\*, **Krish Jayachandran**, Miroslav Gantar, and Kateel Shetty. 2016. Omega-7 Producing Alkaliphilic Diatom *Fistulifera* sp 154-3 from Lake Okeechobee, Florida. **Algal Research**. **In Revision**.
54. Moonilall\*, N, S. Reed, and **K. Jayachandran**. 2016. The effect of composted insect rearing waste on ornamental plants. **Submitted to Horticulture Technology**.
53. Pushpa Soti, Eduardo Peres\*, Joshua Munoz-Jimenez\*, Ariel Freidenreich\*, **Krish Jayachandran**, and Alexis Racelis. 2016. Dual Benefits of Summer Cover Crops: Nematode Control and Fertility Management in a Low Input Agriculture System. **Journal of Agroecology and Sustainable Food Systems**.
52. Pushpa Soti\*, **Krish Jayachandran\*\***, Suzanne Koptur, and John Volin. 2015. Effect of Soil pH on Growth, Nutrient Uptake, and Mycorrhizal Colonization in Exotic Invasive *Lygodium microphyllum*. **Plant Ecology**, 216:989-998.
51. Pushpa Soti\*, Angie Fleurissaint\*, Stewart Reed, and **K. Jayachandran**. 2015. Effects of Control Release Fertilizers on Nutrient Leaching, Palm Growth, and Production Cost. **Agriculture**, 5:1135-1145.
50. Beglajenko\*, D., P. Soti, K.G. Shetty, and **K. Jayachandran\*\***. 2014. Buckwheat as a Cover Crop in Florida: Mycorrhizal Status and Soil Analysis. **Journal of Agroecology and Sustainable Food Systems**, 1033-1046, DOI:10.1080/21683565.2014.906016
49. Sheahan\*, C., D. Bray, M. Bhat, and **K. Jayachandran**. 2012. Ecological, Economic, and Organizational Dimensions of Organic Farming in Miami-Dade County. **Journal of Sustainable Agriculture**, 36:83-105.
48. Ramani\*, A., K.G. Shetty, K.S. Rein, and **K. Jayachandran\*\***. 2012. Microbial Degradation of Microcystin in Florida's Freshwaters. **Biodegradation**, 23:35-45.
47. Shetty, K.G., A.Y. Rossman, A.D. Minnis, and **K. Jayachandran\*\***. 2011. The Brazilian peppertree seed-borne pathogen, *Neofusicoccum batangarum*, a potential biocontrol agent. **Biological Control**, 56:91-97.
46. Shetty, K.G., J.V. Huntzicker\*, K.S. Rein, and **K. Jayachandran\*\***. 2010. Biodegradation of polyether algal toxin – Isolation of potential marine bacteria. **Journal of Environmental Science and Health**, 45:1850-1857.

45. Andrew Ogram, Ashvini Chauhan, Kanika Sharma Inglett, **Krish Jayachandran**, and Susan Newman. 2011. Microbial Ecology and Everglades Restoration. **Critical Reviews in Environmental Science and Technology**, 41:289-308.
44. Joseph\*, R., S. Reed, **K. Jayachandran**, C. Clark-Cuadrado\*, and C. Dunn. 2010. Endosulfan has no Adverse Effect on Soil Respiration. **Agriculture, Ecosystems & Environment**, 138:181-188.
43. Shinde, D., M.R. Savabi, **K. Jayachandran\*\***, S. Reed, P. NKedi-Kizza, and K. Konomi\*. 2009. Influence of Compost Amendments on Leaching of Phosphorus in a Calcareous Soil of South Florida. **International Agricultural Engineering Journal**. 18(3-4): 35-41.
42. Prabhakar Pant\*, Marshall Allen, Yong Cai, and **Krishnaswamy Jayachandran\*\***. 2008. Design and Performance of a Mesocosm Chamber for Trichloroethylene Evaporation Study. **Journal of Water, Air, and Soil Pollution**, 193:3-13
41. Fisher, Jack B., and **Krish Jayachandran**. 2008. Beneficial role of arbuscular mycorrhizal fungi on Florida native palms. **Palms**, 52(3):115-125
40. Fisher, Jack B., and **Krish Jayachandran**. 2008 .Arbuscular Mycorrhizal Fungi Promote Growth and Phosphorus Uptake in *Zamia*, A Native Florida Cycad. **Florida Scientist**, 71(3):265-272.
39. Suwa Ryuichi, **Krish Jayachandran\*\***, Nguyen T N, Abdellah Boulenouar, Kounosuke Fujita, and Hirofumi Saneoka. 2008. Barium Toxicity Effects in Soybean Plants. **Archives of Environmental Contamination and Toxicology**, 55(3):397-403
38. Assefa Melesse, **Krishnaswamy Jayachandran**, and Keqi Zhang. 2008. Modeling coastal eutrophication of Florida Bay using Neural Networks. **Journal of Coastal Research**, 24(2B): 190-196.
37. James A. Entry, DeEtta Mills, Kalai Mathee, **Krish Jayachandran**, and R.E. Sojka. 2008. Influence of irrigated agriculture on soil microbial diversity. **Applied Soil Ecology**, 40(1):146-155.
36. Griffith\*, Robert T., **Krish Jayachandran**, Kateel G. Shetty, William Whistine, and Kenneth G. Furton. 2007. Differentiation of Toxic Molds via Headspace SPME-GC/MS and Canine Detection. **Sensors**, 7:1496-1508
35. Shetty, Kateel G., **Krish Jayachandran\*\***, Katherine Quinones\*, Kevin E. O'Shea, Teresita A. Bollar\* and Michael R. Norland. 2007. Allelopathic Effects of Ragweed Compound Thiarubrine-A on Brazilian Pepper. **Allelopathy Journal**, 20:371-378.
34. Entry, James A., DeEtta Mills, **Krish Jayachandran**, and Thomas B. Moorman. 2007.

Molecular-Based Approaches to Soil Microbiology. **Soil Science Society of America Journal**, 71:561.

33. Prabhakar Pant\*, Marshall Allen, Yong Cai, **Krishnaswamy Jayachandran\*\***, and Yin Chen. 2007. Influence of Physical Factors on Trichloroethylene Evaporation from Surface Water. **Journal of Water, Air, and Soil Pollution**, 183:153-163.

32. Clarke\*, T., K.G. Shetty, **K. Jayachandran\*\***, and M.R. Norland. 2007. *Myrothecium verrucaria* - a potential biological control agent for the invasive "old world" climbing fern, *Lygodium microphyllum*. **Biocontrol**, 52:399-411.

31. Jones, D.T., J.P. Sah, M.S. Ross, S.F. Oberbaeur, B. Hwang, and **K. Jayachandran**. 2006. Growth and physiological responses of twelve tree species common in Everglades tree islands to simulated hydrological regimes. **Wetlands**, 26:830-844.

30. Sah\*, S., S. T. Reed, **K. Jayachandran\*\***, C. Dunn, and J. B. Fisher. 2006. The Effect of Repeated Short-term Flooding on Mycorrhizal Survival in Snap Bean Roots. **HortScience**, 41:598-602

29. Reed, S., D. Shinde, K. Konomi\*, **K. Jayachandran**, P. Nkedi-Kizza, and M.R. Savabi. 2006. Phosphorus leaching potential from compost amendments in a carbonatic Soil. **Soil Science**, 171:865-873.

28. Ross, Michael S., Sherry Mitchell-Bruker, Jay P. Sah, Stuart Stothoff, Pablo L. Ruiz, David L. Reed\*, **Krish Jayachandran**, and Charles L. Coultas. 2006. Interaction of hydrology and nutrient limitation in the ridge and slough landscape of the southern Everglades. **Hydrobiologia**, 569:37-59.

27. Chengyong Yang\*, Yong Wang, DeEtta Mills, Kalai Mathee, **Krish Jayachandran**, Patrick Gillevet, Jim Entry, Giri Narasimhan. 2006. An Ecoinformatics Tool for Microbial Diversity Studies: Supervised Classification of Amplicon Length Heterogeneity (ALH) Profiles of 16S rRNA. **Journal of Microbial Methods**, 65:49-62

26. Fisher J.B., and **K. Jayachandran**. 2005. Presence of arbuscular mycorrhizal fungi in South Florida native plants. **Mycorrhiza**, 15:580-588

25. Griffith\*, R.T., K.G. Furton, and **K. Jayachandran**. 2005. Identification of Signature Microbial Volatile Organic Compounds from Toxic Molds using SPME/GC/MS and Canine Detection. **Journal of Automated Methods and Management in Chemistry**, 3:158

24. Konomi\*, K., R. Savabi, D. Shinde, **K. Jayachandran**, P. Nkedi-Kizza, and S. Reed. 2005. Water and atrazine movement in a calcareous compost applied soil during simulated multiple storms events. **Journal of Water, Air, and Soil Pollution**, 165:365-377.

23. Savabi, M.R., D.L. Shinde, K. Konomi\*, P.N. Kizza, and **K. Jayachandran**. 2005. Modeling the effect of soil amendments (Composts) on water balance and water quality.

**Journal of Environmental Hydrology**, 13:1-14.

22. Gaiser, E.E., J.C. Trexler, J.H. Richards, D.L. Childers, D. Lee, A. L. Edwards, L. J. Scinto, **K. Jayachandran**, G.B. Noe, and R.D. Jones. 2005. Cascading Ecological Effects of Low-Level Phosphorus Enrichment in the Florida Everglades. **Journal of Environmental Quality**, 34:717-723.

21. Gaiser, E.E., L.J. Scinto, J.H. Richards, **K. Jayachandran**, D.L. Childers, J.C. Trexler, and R.D. Jones. 2004. Phosphorus in Periphyton Mats Provides the Best Matrix for Detecting Low-Level P enrichment in an Oligotrophic Wetland. **Water Research**, 38:507-516.

20. **Jayachandran\*\***, **K.**, and K.G. Shetty. 2003. Growth Response and Phosphorus Uptake by Arbuscular Mycorrhizae of Wet Prairie Sawgrass. **Aquatic Botany**, 76:281-290.

19. Guha\*, H., **K. Jayachandran**, and F. Maurrasse. 2003. Microbiological Reduction of Hexavalent chromium over Geochemical Oxidation by Pyrolusite-Coated Sand. **Chemosphere**, 52:175-183

18. Fisher, J.B. and **K. Jayachandran**. 2002. Arbuscular mycorrhizal fungi enhance seedling growth and phosphorus uptake in two endangered plant species from South Florida. **International Journal of Plant Sciences**, 163:559-566

17. Cai, Y., J.C. Cabrera\*, M. Georgiadis\*, and **K. Jayachandran**. 2002. Assessment of Arsenic Mobility in the Soils of some Golf Courses in South Florida. **The Science of the Total Environment**, 291:123-134

16. Noe, G.B., D.C. Childers, A.L. Edwards, E. Gaiser, **K. Jayachandran**, D. Lee, J. Meeder, J. Richards, L.J.Scinto, J. Trexler, and R.D. Jones. 2002. Short-term Changes in Phosphorus Storage in an Oligotrophic Everglades Wetland Ecosystem Receiving Experimental Nutrient Enrichment. **Biogeochemistry**, 59:239-267

15. Guha\*, H., **K. Jayachandran**, and F. Maurrasse. 2001. Kinetics of Chromium (VI) Reduction by Type Strain *Shewanella alga* under Different Growth Conditions. **Environmental Pollution**, 115:209-218.

14. Guha\*, H., S.E. Saiers, S. Brooks, P. Jardine, and **K. Jayachandran**. 2001. Chromium Transport, Oxidation, and Adsorption in Manganese-Coated Sand. **Journal of Contaminant Hydrology**, 49:311-334.

13. Moorman, T.B., **K. Jayachandran**, and A. Reungsang\*. 2001. Adsorption and Desorption of Atrazine in Soils and Subsurface Sediments. *Soil Science*, 166:921-929

12. Fisher, J.B., and **K. Jayachandran**. 1999. Root structure and arbuscular mycorrhizal colonization of the palm *Serenoa repens* under field conditions. **Plant and Soil**, 217:229-241.

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### ***Book Reviews***

Book review of Ecology: Concepts and Applications by Manual C. Molles Jr. Third Edition. 2005. 622 pp. McGraw Hill Higher Education.

### **PRESENTED PAPERS AND LECTURES**

#### ***Refereed Conference Presentations:***

#### ***Accepted abstracts for conference paper presentations***

\*\*\*Denotes Person presented paper.

Krish Jayachandran, Eduardo Peres, and Pushpa Soti. 2015. Mycorrhizal Fungi: A Biological Control Agent of Plant Parasitic Nematodes. ASA, CSSA, SSSA International Annual Conference, Nov 15-18, Minneapolis, MN

Krish Jayachandran, Joshua Munoz-Jimenez, and Pushpa Soti. 2015. Using Summer Cover Crops for Nematode Control in a Low Input Agriculture Systems. ASA, CSSA, SSSA International Annual Conference, Nov 15-18, Minneapolis, MN

Andrea Salas, Suzanne Koptur, and Krish Jayachandran. 2015. Effect of Host Plant Density on Herbivores and their Parasitoids: A Field Experiment with a Native Perennial Legume. ASA, CSSA, SSSA International Annual Conference, Nov 15-18, Minneapolis, MN

Krish Jayachandran, Len Scinto, and Mike Ross. 2015. Phosphatases Enzymes Activity in Phosphorus Rich Everglades Tree Islands Ecosystem. GEER Conference, April 21 -23, 2015, Coral Springs, FL

Pushpa Soti, Krish Jayachandran, and John Volin. 2015. Influence of Soil biogeochemical Properties on Exotic Invasive Lygodium Microphyllum: A Cross Continent Comparison of Soil Characteristics to Invasion Success. GEER Conference, April 21 -23, 2015, Coral Springs, FL

Krishnaswamy Jayachandran, Mahadev Bhat, Stephany Alvarez, and Kateel Shetty. 2014. Experiential and Experimental Learning Approaches for Undergraduate Education in Agroecology. ASA, CSSA, SSSA International Annual Conference, Nov 2-5, Long Beach, CA.

Kateel G. Shetty, Krish Jayachandran, and Mahadev Bhat. 2013. Models for Teaching Interdisciplinary Biofuels Science: A Multi-pronged Approach. 59th Annual North American Colleges and Teachers of Agriculture Conference. June 25-29, 2013, Blacksburg, VA.

Mahadev Bhat, Krish Jayachandran, and Stephany Alvarez. 2013. Mentoring undergraduate students in agroecology. 59th Annual North American Colleges and Teachers of Agriculture Conference. June 25-29, 2013, Blacksburg, VA.

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Priyanka Narendar\*/\*\*\*, Miroslav Gantar, and Krishnaswamy Jayachandran. 2010. Screening and Identification of Everglades algal isolates for Biodiesel production. Florida Energy Systems Consortium, September 28-29, 2010. Orlando, FL

Krish Jayachandran\*\*\*, Kateel G. Shetty, Tainya C. Clarke\*, Shili Miao, LeRoy Rodgers, and Robert Johnson. 2010. Potential for use of native phytopathogens as biocontrol agents for invasive plant species. Greater Everglades Ecosystem Restoration, The Greater Everglades: A Living Laboratory Change – Planning, Policy, and Science Meeting, July 12-16, 2010, Naples, FL

Mahadev Bhat\*\*\* and Krish Jayachandran, 2010. Agriculture science education in minority serving, urban Universities: Service learning, collaboration, and community engagement.



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Krish Jayachandran\*\*\*, Kateel G. Shetty, LeRoy Rodgers, Shili Miao, and Robert Johnson. 2010. Potential for use of native phytopathogens as biocontrol agents for Old World Climbing fern (*Lygodium microphyllum*). Florida Exotic Pest Plant Council Symposium, April 5-8, 2010, Crystal River, FL

Krish Jayachandran\*\*\* and Mahadev Bhat. 2009. Multicultural Undergraduate Scholars in Agroecology at Florida International University: In Interdisciplinary Approach. Joint MSP/NNF Project Directors and Beneficiaries Meeting, October 20-21, 2009, 1410 Waterfront Center, Washington DC Invited Speaker

Krish Jayachandran\*\*\*, Kateel G. Shetty, and Lynne Feiber. 2009. Microbial Biodegradation of Brevetoxins – Isolation and Screening of Potential Marine Bacteria. March 9-10, 2009, ARCH Meeting, Florida International University

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Krish Jayachandran\*\*\*, Tainya C. Clarke\*, and Kateel G. Shetty. 2008. A Potential Biological Control Agent for Invasive Plant Species, Old World Climbing Fern (*Lygodium microphyllum*). 23<sup>rd</sup> Annual Symposium, Florida Exotic Pest Council, April 21- 24, 2008, Jacksonville, FL. Invited Speaker

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Joel Trexler\*\*\*, Evelyn Gaiser, Len Scinto, Daniel Childers, and Krishnaswamy Jayachandran. 2007. Phosphorus Load-Dependent Limitation of Aquatic Consumers in an Oligotrophic Wetlands. North American Benthological Society 55<sup>th</sup> Annual Meeting, Columbus, SC

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N. Dela Rosa, B. Toprack, N. Damaso, and K. Jayachandran, 2014. Comparison of Rhizosphere and non-Rhizosphere Microbial Communities of Avocado Trees Between four Different Soil Conditions in Miami-Dade County, Florida. 114th American Society for Microbiology Annual Conference. May 17-20, 2014, Boston, MA.

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Teresita Bollar\*/\*\*\*, Biology 4<sup>th</sup> year student. 2005. Allelopathic effects of Ragweed compound Thiarubrin-A on Brazilian pepper (*Shinus terebinthifolius*). Poster presented at First Student Research and Artistic Initiatives Annual Conference, March 10, MARC Building, FIU. Krish Jayachandran serves as REU mentor. This work is a collaborative effort between myself, Dr. Shetty and Dr. Kevin O' Shea from Chemistry and Biochemistry.

Jackie Huntzicker\*/\*\*\*, Liberal Studies, 3<sup>rd</sup> year. 2005. Studies on Okadaic Acid Biotransformation/Biodegradation – Isolation and Screening of Potential Marine Bacteria. Poster presented at First Student Research and Artistic Initiatives Annual Conference, March 10, MARC Building, FIU. Krish Jayachandran serves as REU mentor. This work is a collaborative effort between myself, Dr. Shetty and Dr. Kelly Rein from Chemistry and Biochemistry.

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Jayachandran\*\*\*, K., and J. Fisher. 1999. Role of Arbuscular-Mycorrhizae in Tropical Species of South Florida. Soil Science Society of America Society of Agronomy meetings, October 31-November 4, 1999. Salt Lake City, UT

Jayachandran\*\*\*, K., M. Nair, and R.D. Jones. 1998. Role of arbuscular-mycorrhizae on the growth of sawgrass under different soil types. American Society of Agronomy 90<sup>th</sup> National Meetings, Baltimore, MD October 18-22, 1998.

Fisher, J.B., and K. Jayachandran\*\*\*. 1997. Mycorrhizae and Restoration of Everglades Upland Plant Communities (Pine Rockland and Hardwood Hammock). Society for Ecological Restoration 9<sup>th</sup> Annual International Conference, Ft. Lauderdale, FL November 12-15, 1997.

Moscinski\*/\*\*\*, J.K., K. Jayachandran, and T.B. Moorman. 1996. Mineralization of the Herbicide Atrazine by *Agrobacterium radiobacter*. American Society for Microbiology 96<sup>th</sup> National Meeting, New Orleans, LA May 19-23, 1996.

Moscinski\*, J.K., K. Jayachandran\*\*\*, and T.B. Moorman. 1995. Mineralization of the herbicide atrazine by a bacterial isolate. American Society of Agronomy 87<sup>th</sup> National Meeting, St. Louis, MO, Nov. 1995.

Nedumpara\*/\*\*\*, M.J., T.B. Moorman, and \*K. Jayachandran. 1995. VA-Mycorrhizal effects on herbicide dynamics in plants. American Society of Agronomy 87<sup>th</sup> National Meeting, St. Louis, MO, Nov. 1995.

Schwab\*\*\*, A.P., B.A.D. Hetrick, G.W.T. Wilson, and K. Jayachandran. 1994 Assessing the role of mycorrhizae in enhancing phosphorus uptake by the host plant. American Society of Agronomy 86<sup>th</sup> National Meeting, Seattle, WA, Nov. 1994.

Jayachandran\*\*\*, K., T.B. Moorman, J.M. Novak, N. Stolpe, P.J. Shea, C.A. Cambardella, E.A. Douglass, and M.D. Jawson. 1994. Sorption and degradation of atrazine in soils and subsurface sediments from the American midwest. Eighth IUPAC International Congress of Pesticide Chemistry, Washington, DC, July 1994.

Nedumpara\*, M.J., K. Jayachandran\*\*\*, and T.B. Moorman. 1994. The interactions of pesticides, VAM fungi and crops. Eighth IUPAC International Congress of Pesticide Chemistry, Washington, DC, July 1994.

Jayachandran\*\*\*, K., T.R. Steinheimer, L. Somasundaram, R.S. Kanwar, T.B. Moorman, and J.R. Coats. 1992. Atrazine and degradates in groundwater beneath continuous corn under no-till management. American Society of Agronomy 84<sup>th</sup> National Meeting, Minneapolis, MN, Nov. 1992.

Jayachandran\*\*\*, K., A.P. Schwab, and B.A.D Hetrick. 1990. Separation of inorganic and organic phosphorus using acidified molybdate and isobutanol. American Society of Agronomy 82<sup>nd</sup> National Meeting, San Antonio, TX, Oct. 1990.

Jayachandran\*\*\*, K., B.A.D. Hetrick, and A.P. Schwab. 1990. Role of VA-Mycorrhizae in phosphorus acquisition from unavailable phosphorus sources. Eighth North American Conference on Mycorrhizae (NACOM), Jackson Hole, WY, Sep. 1990.

***Invited Conference Presentations:***

Agriculture Science Education at Florida International University: Student Access, Success, and Diversity. APLU-CADE: 2015 National Access, Diversity and Excellence Summit, July 30-31, 2015, Florida International University, Miami, FL

Identifying efficient algal strain from the Everglades for biodiesel production. Second World Algal Summit, May 5-6, 2011, San Diego, CA

Current Status of Algae Use for Biofuel Production. Latin American and Caribbean Biofuel Conference. August 17-18, 2010, Santiago, Chile.

Biofuel Science Education for Agroecology students at FIU. USDA-NIFA-HSI PDs Conference, November 28-Dec 1, 2010. Washington DC.

Agroecology Program at Florida International University. USAD-Hispanic Serving Institutions Priority Setting and Strategic Planning Meeting. July 26-28, 2010, Washington, DC.

Multicultural Undergraduate Scholars in Agroecology at Florida International University: In Interdisciplinary Approach. Joint MSP/NNF Project Directors and Beneficiaries Conference, October 20-21, 2009, 1410 Waterfront Center, Washington DC.

A Potential Biological Control Agent for Invasive Plant Species, Old World Climbing Fern (*Lygodium microphyllum*). 23<sup>rd</sup> Annual Symposium, Florida Exotic Pest Council, April 21-24, 2008, Jacksonville, FL.

Establishment of Multicultural Scholars Program at Florida International University. Joint MSP/NNF Project Directors Conference, October 16-18, 2007 Washington, DC

***Invited Conference Sections Moderator:***

Tree Islands Ecology section of the Greater Everglades Ecological Restoration, For Everglades Restoration 2050: Advancing the Science to Achieve Success – Planning, Policy, and Science Meeting, July 28 – August 1, 2008, Naples, FL

Soil Microbial Structural and Functional Diversity section of the Soil Science Society of America National Conference, October 5 – 8, 2008, Houston, TX

Ecological Society of America Annual Conference - Presided Oral Session # 48: Mutualism-Parasitism I: Plants; Modeling Wednesday, August 6, 2003, Savannah, GA

Soil Science Society of America Annual Conference, Moderator for Soil Ecology Section, October 31 – November 4, 1999. Salt Lake City, UT

***Symposia and Workshops Conducted and Organized:***

Bioenergy Science Internship for High School Students – Eight weeks workshop on Bioenergy, Science and Technology. 12 High School Students attended. June 22 – August 18, 2011.

National University of Agriculture, Honduras Junior Students Workshop at FIU from October 24 – 30, 2010. Hosted 40 junior students from National University of Agriculture, Honduras on experiential learning, training, research, and education.

Study Abroad – India: We took nine FIU agroecology students to University of Agricultural Sciences, Bangalore and Tamil Nadu Agricultural University, Coimbatore, India on three week international science education trip on biofuels. Students had a wonderful opportunities to learn science, education, technology and social culture in India.

Urban Agriculture and Community Gardening. Annual Agroecology Symposium organized at FIU on February 16, 2010. A panel discussion, poster session and several oral presentation sessions were held. More than 150 people including FIU students and faculty, farmers and the area high school students attended the symposium.

Summer Agroecology Workshop for School Teachers. Conducted a five day workshop, along with Dr. Bhat at FIU from July 6 to 10, 2010 for school teachers as part of the USDA Hispanic Serving Institutes Education Grant Program. Organized two days of class room lectures followed by field trips to USDA research station, local farms.

Conducted workshop on biofertilizers, plant growth promoting rhizobacteria, biological control of weeds, soil microbial diversity for three visiting scientists from Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu, India Jan – Feb. 2010

Sustainable Agriculture: Challenges and Opportunities. Annual Agroecology Symposium organized at FIU on February 24, 2009. A panel discussion, poster session and several oral presentation sessions were held. More than 150 people including FIU students and faculty, farmers and the area high school students attended the symposium.

Summer Agroecology Workshop for HighSchool Teachers. Conducted a six day workshop, along with Dr. Bhat at FIU July 15-20, 2008 for high school teachers as part of the USDA Hispanic Serving Institutes Education Grant Program. Organized two day class room lectures followed by field trips to USDA research station, South Florida Water Management District water treatment area, USDA Sugarcane Research Station, Archbold Biological Station, and

MacArthur Agroecology Research Center.

Agroecology and Sustainable Agriculture: Challenges and Opportunities. Annual Agroecology Symposium organized at FIU on January 15, 2008. A panel discussion, poster session and two student presentation sessions were held. More than 100 people including FIU students and faculty, farmers and the area high school students attended the symposium.

Summer Agroecology Workshop for HighSchool Teachers. Conducted a six day workshop, along with Dr. Bhat at FIU July 15-20, 2006 for high school teachers as part of the USDA Hispanic Serving Institutes Education Grant Program. Organized two day class room lectures followed by field trips to USDA research station, USDA Sugarcane Research Station, Archbold Biological Station, and MacArthur Agroecology Research Center.

Agroecology Symposium. First Annual Agroecology Symposium organized at FIU October 23, 2006. A panel discussion, poster session and two student presentation sessions were held. More than 50 people including FIU students and area high school students attended the symposium.

NSF-FIU Research Workshop Organizer on January 27, 2006. Invited NSF Program Officer for the Ecosystem Studies to conduct a day workshop on NSF funding priorities, proposal preparation, review criteria, and students research opportunities. 50 people attended.

Symposium Organizer: Organized a special one-day symposium on “Advances in Molecular Approaches in Soil Microbiology” at Soil Science Society of America Conference, Nov 9-10, 2005, Salt Lake City, UT. Invited experts in various fields of molecular soil microbiology for a special presentation. Compiled manuscripts for publication as special issue in Soil Science Society of America Journal.

Organized first Annual Conference on Student Research and Artistic Initiatives on March 10, 2005. Put together poster displays, research panels, invited key note speaker, Professor Ray Turner from Roxbury Community College, Boston, MA. There were approximately 150 participants.

Conducted several workshops for The Honors College SRAI student preparations for research and presentation techniques. 2004 and 2005.

Organized Student Research and Artistic Initiatives Inagural symposium on February 25, 2004.

Conducted workshop on soil microbial diversity using molecular techniques from November – December 2001 for USDA-ARS Scientist from Kimberley, ID

Organized Mycorrhizal Research Workshop on June 14, 2000 at Florida International University. Twenty five researchers and graduate students from Florida attended the workshop.

***Invited Papers, Seminars, Testimony and Presentations:***

Agriculture Science Education at Florida International University: Student Access, Success, and Diversity. APLU-CADE: 2015 National Access, Diversity and Excellence Summit, July 30-31, 2015, Florida International University, Miami, FL

Identifying efficient algal strain from the Everglades for biodiesel production. Second World Algal Summit, May 5-6, 2011, San Diego, CA

Current Status of Algae Use for Biofuel Production. Latin American and Caribbean Biofuel Conference. August 17-18, 2010, Santiago, Chile.

Biofuel Science Education for Agroecology students at FIU. USDA-NIFA-HIS PDs Conference, November 28-Dec 1, 2010. Washington DC.

Native Phytopathogens as Potential Biological Control Agents for Invasive Plants in South Florida. Environmental Resource Management Class. February 03, 2011.

Agroecology Program at Florida International University: Progress Report. Project Directors Meeting, USDA, Washington DC November 29 – December 2, 2010.

Biological Management for Exotic Invasive Plant Species in Florida. September 22, 2010. Environmental Studies Graduate Seminar.

Current Status of Algae Use for Biofuel Production. Latin American and Caribbean Biofuel Conference. August 17-18, 2010, Santiago, Chile.

Agroecology Program at Florida International University. USDA-Hispanic Serving Institutions Priority Setting and Strategic Planning Meeting, July 26-28, 2010, Washington, DC.

Is a Biological Control Strategy Effective on *Lygodium*? Friday June 11, 2010, 11.30-1.00, B2-1S, Florida Bay Conference Room, South Florida Water Management District.

Native Biological Agents for the Management of Invasive Exotic Plant Species. February 4, 2010. Environmental Resource Management Class.

Multicultural Undergraduate Scholars in Agroecology at Florida International University: In Interdisciplinary Approach. Joint MSP/NNF Project Directors and Beneficiaries Conference, October 20-21, 2009, 1410 Waterfront Center, Washington DC Invited Speaker

A Potential Biological Control Agent for Invasive Plant Species, Old World Climbing Fern (*Lygodium microphyllum*). 23<sup>rd</sup> Annual Symposium, Florida Exotic Pest Council, April 21-24, 2008, Jacksonville, FL.

Lectures on Principles of Agroecology and Research Methods in Sustainable Agriculture at



Agroecology Annual Symposia October 23, 2006, January 15, 2008, and February 16, 2010.

Lectures on Principles of Agroecology and School Students Research Projects. Lectures at Agroecology at Biannual Summer School Teachers Workshops July 15-20, 2006, 2008, and July 6-10, 2010.

Screening and Identification of Native Microbial Isolates from Lygodium habitat of South Florida. March 6, 2008, 11.30-1.00, B2-3S Biscayne Bay Conference Room, South Florida Water Management District.

Importance of Agroecology, Sustainable Agriculture and the Scholarships and Internships Opportunities at selected six senior high schools in Miami-Dade County. Twice a year visit to these schools since 2007.

Establishment of Multicultural Scholars Program at Florida International University. Joint MSP/NNF Project Directors Conference, October 16-18, 2007 Washington, DC

Practice of Agroecological Principles for Sustainable Agriculture. Guest Lecture presented at the Global Environmental Issues class by Jack Parker, October 2006

Role of Microorganisms in Soil, Plant and Water Environments. The Honors College Research Methods Class Spring 2006

Fate and Transport of Pesticides in Soil and Water and the significance of Biodegradation. The Honors College Research Methods Class. Fall 2005

A Microbiologist Strategy for Management Invasive Plants in South Florida. August 2007, South Florida Water Management District, West Palm Beach, FL

Sabbatical Experience in Japan: Research, Education, and Extension Experience at Hiroshima University, Japan. October 2007. Environmental Studies Graduate Seminar.

Biological Control of Invasive Plant Species. Environmental Studies Graduate Seminar, Fall 2006.

Biological Invasion in South Florida: A Microbiologist Approach for Management. SERC Brown Bag Seminar Series. Fall 2006.

Soil Characterization and Nutrient Dynamics in Everglades Wetlands. April 15, 2004. Tropical Research and Education Center, University of Florida, Homestead, FL

Phosphorus Interactions in the Everglades Wetlands Ecosystems. May 24, 2002. USDA-ARS, Kimberly, ID

Soils of South Florida. March 12, 2002, MAST Academy High School, Miami, FL

The Impact of Low-level Phosphorus Loading on the Everglades Wetlands of Florida, USA. July 16, 2001, The University of Queensland, School of Agriculture and Horticulture, Gatton, Queensland, Australia

Fate and transport of herbicides in soils. October 9, 1998, Graduate Environmental Engineering Seminar Series.

Atrazine Degradation and its impact in Soil and Water Environment. Spring 1997, Geology Department Seminar Series.

Bioremediation of Pesticides. Fall 1996, Chemistry Department Seminar Series.

Behavior of Pesticides in Soil. Fall 1996, Environmental Studies Graduate Seminar.

Pesticides and Environment. Fall 1996, Environmental Studies Colloquium EVR 4920

**Individualized Graduate and Undergraduate Independent Studies (EVR 4905 and EVR 5905 – one to three credit hours per student):**

Supervised ~200 independent study projects of graduate and undergraduate students (about 10 projects per year)

Topics and students names available

**Graduate Student Supervision:**

**Student List:**

**Graduated Students Number: 37**

**Major Advisor for PhD Students:**

1. **Dr. Pushpa Soti:** Influence of Soil Biogeochemical Properties on the Invasiveness of Old World Climbing Fern (*Lygodium microphyllum*). **Graduated in Fall 2013. Received Dissertation Evidence Award.**
2. **Dr. Hillol Guha:** Influence of Hydrobiogeochemistry on Transport of Chromium Through Manganese – Containing Sediments: Experimental and Modeling Approaches. **Graduated in Spring 2000.**

**Major Advisor for MS Thesis Track Students:**

3. **Ms. Ariel Freidenreich:** Comparison of Synthetic versus Organic Herbicides/Insecticides on Arbuscular Mycorrhizal Fungi in *Abelmoschus esculentus*.

**Graduated Summer 2016. USDA-NNF Fellow.**

4. **Ms. Andrea Salas:** Effects of host-plant density on herbivores and their parasitoids: a field experiment with a native perennial legume. **Graduated Summer 2016. Received Provost Excellence in Teaching Award – 2106**
5. **Ms. Herma Pierre:** Mangiferin as a Biomarker for Mango Anthracnose Resistance. **Graduated in Summer 2015. USDA-NNF Fellow.**
6. **Mr. Eric Betancourt:** Evaluation of Crop Seed Powders as Amendments for Purple Nutsedge (*Cyperus rotundus*) Control Compared to the Traditional Herbicide, Roundup. **Graduated in Summer 2015. USDA-NNF Fellow.**
7. **Mr. Ramon Salazar:** Leaf Functional Traits and Forest Structure of Tropical Dry Forest Species along a Rainfall Gradient in Florida and Puerto Rico. **Graduated in Spring 2015. USDA-NNF Fellow.**
8. **Ms. Yujie Hua:** Changes of Soil Biogeochemistry under Native and Exotic Plant Species. Defended her thesis, **Graduated in Spring 2015.**
9. **Mr. Miles Medina:** Effect of Aquafeed on Productivity of Red Amaranth and on Water Quality Under Aquaponic Cultivation of Blue Tilapia. Graduated in Spring 2014.  
**Received Outstanding Thesis Award**  
**Best Thesis Award by American Association for Hispanics in Higher Education**  
**USDA Graduate Fellow by American Association for Hispanics in Higher Education.**  
  
FIU News <http://news.fiu.edu/2014/11/alumnus-finds-solutions-for-food-insecurity-through-aquaponics/82843>
10. **Ms. Vanessa Sanchez:** Characterization of Rhizobial Diversity and Relationship of Rhizobial Partner and Legume Performance in Four South Florida Pine Rockland Soils. **Graduated in Spring 2014.**
11. **Ms. Klara Scharngl:** The Effects of Arbuscular Mycorrhizal Fungi on Four Legume Hosts in South Florida Pine Rockland Soils. **Graduated in Summer 2013.**
12. **Ms. Daria Boglajenko:** Buckwheat as a Cover Crop in Florida: Mycorrhizal Status, Soil Analysis, and Economic Assessment. **Graduated in Summer 2013.**  
**Received Outstanding Graduate Student Award.**
13. **Ms. Danielle Goveia:** An Analysis of the Potential Risk Exposure to Lead (Pb) Through Urban Community Gardens. **Graduated in Spring 2013.**  
**Received Outstanding Thesis Award.**

FIU News <http://news.fiu.edu/2014/01/lead-contamination-research-leads-to-safer-soil-in-liberty-city/73827>

14. **Ms. Thelma Velez:** Measuring the Impact of *Melaleuca quinquenervia* Biochar Application on Soil Quality, Plant Growth, and Microbial Gas Flux. **Graduated in Fall 2012.**

**Received Outstanding Graduate Student Award.**

USDA Blog on Agriculture Education  
<http://blogs.usda.gov/2013/06/18/agroecology-program-ag-research-is-more-than-farming/>

15. **Mr. Andrew Jungman:** Examining the Use of *Simarouba glauca* Seed Oil as a Feedstock for the Production of Biofuels in Karnataka, India. **Graduated in Fall 2012.**

16. **Ms. Juliana Masaghaa:** Sediment yield modeling and identification of erosion hotspots in tropical watersheds. **Graduated in Summer 2012.** Co-Advised with Dr. Assefa Melesse

17. **Ms. Stephany Alvarez:** Factors influence on honey bee populations in different agricultural systems. **Graduated in Spring 2012.**

**Received Outstanding Graduate Student Award.**

**Received Outstanding Thesis Award.**

**Best Thesis Award by American Association for Hispanics in Higher Education**

**USDA Graduate Fellow by American Association for Hispanics in Higher Education.**

FIU News <http://news.fiu.edu/2012/11/alumna-finds-answers-for-food-security-with-honeybees/>

18. **Ms. Priyanka Narendar:** Screening and Identification of Everglades Algal Isolates for Biodiesel Production. **Graduated in Fall 2010.**

**Received Outstanding Graduate Student Award.**

19. **Ms. Anusha Ramani:** Microbiological Degradation of Freshwater Algal Toxins, Microcystin in Florida's Freshwaters. **Graduated in Fall 2009.**

**Received Outstanding Graduate Student Award.**

20. **Ms. Cristina Clark-Cuadrao:** Effects of a Switchgrass bufferstrip on soil microorganisms near a field applied with endosulfan. **Graduated in Fall 2007.**

21. **Ms. Tainya Clarke:** Biocontrol of *Lygodium microphyllum* using a native pathogenic fungi. **Graduated in Fall 2006.**

**Received Outstanding Graduate Student Award.**

22. **Ms. Seema Sah:** Effect of flooding on arbuscular mycorrhizal fungal colonization in bean plants. **Graduated in Summer 2006.**
23. **Mr. Ramakrishna Ruthala:** Bio-Geochemical Factors Influence on Microbial Community Structure on Tree Island Ecosystems of Florida Everglades. **Graduated in Fall 2004.**
24. **Ms. Elizabeth Struhar:** The Relationship between Soil Moisture and Nutrient Availability in Tree Islands of Shark Slough, Everglades National Park. **Graduated in Spring 2003.**  
**Received Outstanding Graduate Student Award.**
25. **Mr. Prabhakar Pant:** Natural Attenuation of Trichloroethene in Stream Behavior Fate and Transport. **Graduated in Spring 2003.**  
**Received Outstanding Graduate Student Award.**
26. **Ms. Susan Kemp:** The effects of vesicular-arbuscular mycorrhizal colonization and phosphorus on Sawgrass (*Cladium jamaicense*) growth in marl and abandoned farmland soils. **Graduated in Spring 2003.**
27. **Mr. Robert McMullen:** Brazilian Pepper Suppression on Soil Disposal Mounds in the Hole-In-The- Donut Restoration Area, Everglades National Park. **Graduated in Spring 2002.**
28. **Mr. Kenichiro Konomi:** Fate and Transport of Herbicide Atrazine in Calcareous Soils of South Florida. **Graduated in Fall 2001.**
29. **Ms. Darcy Stockman:** Growth Response of Certain Tropical Legume Species to Arbuscular Mycorrhizal Fungal Symbiosis. **Graduated in Spring 2001.**

**Major Advisor for MS Non-Thesis Track Students:**

30. **Mr. Eudel Cepero:** Soil Erosion Model Development and Soil Conservation. **Graduated in Spring 2007.**
31. **Ms. Allison Stone:** Periphyton and macrophytes as a bioindicator in the tarland burn of the river Dee. **Graduated in Spring 2005.**
32. **Ms. Laura Coronel:** Fate and Transport of PAH's in Florida's Groundwater. **Graduated in Spring 2004.**
33. **Mr. Valentine Walker:** A Shift Towards Biocontrol Away from Harmful Chemical Pesticides in Florida's Citrus Industry. **Graduated in Summer 2002.**
34. **Ms. Kristina Serbesoff-King:** Biology, Invasion, and Control Methods on the Invasive Category I Plant Species *Melaleuca* – A Monograph. **Graduated in**

**Summer 2002.**

**35. Angelique Lawrence:** Brownfield Redevelopment in Miami-Dade County.  
**Graduated in Fall 2001.**

**Current Students Advising: MS 2, PhD 5**

**As Major Advisor to CURRENT Doctoral Students in Biology:** Prabhkar Pant

**As Major Advisor to CURRENT master's students in Environmental Studies:** Adel  
Pena, Erich Dautel

**Professional Science Master's in Env. Policy & Management Students  
Advised/Advising: 45**

**As a Member on Master's Thesis Committees in Environmental Studies:**

**Total Number: 40**

- 1. Ms. Gaelle Glickfield:** An aquatic risk assessment of ethion and bromacil inputs to the C-25 Canal and Indian River Lagoon. Advisor: Dr. Rand, Graduated in 1999.
- 2. Mr. Mike Byrne:** Groundwater nutrient loading in Biscayne Bay, Biscayne National Park, Florida . Advisor: Dr. Meeder, Graduated in 1999.
- 3. Ms. Elizabeth Mayo:** Reforestation of Pinus Elliottii var. densa on the Miami Rock Ridge : field experiment and economic analysis of two alternative methods. Advisor Dr. Clarke, Graduated in 2000.
- 4. Ms. Shivanna Mahabir:** The effects of methyl tertiary butyl ether (MTBE) on soil organisms. Advisor: Dr. Rand, Graduated in 2002.
- 5. Mr. Giddy Bobeche:** Ecological, economic, and organizational dimensions of organic farming in Miami-Dade County. Advisor Dr. Bray, Graduated in 2006.
- 6. Mr. David Reed:** Effects of hydrology and light on seedling establishment and growth of four wetland tree species in tree islands of northern Shark Slough, Everglades National Park. Advisor: Dr. Ross, Graduated in 2007.
- 7. Ms. Maria Marasigan:** Social and Ecological Dimensions of a Small Farmer Organic Cooperative in El Salvador. Advisor Dr. Bray, Graduated in 2008.
- 8. Ms. Erin Hanan:** Multi-scaled patterning of plant-soil-water interactions across tree islands and marshes within the prairie and slough landscapes of everglades national park. Advisor Dr. Ross, Graduated in 2008.

9. **Mr. Rich Soto:** Accessible community gardening in South Florida. Advisor Dr. Bhat, Graduated in 2010.
10. **Mr. Fukrudhin Maalim:** Modeling potential erosion and sediment contribution from upland agricultural areas: a case study of Le Sueur river watershed, Minnesota. Advisor Dr. Melesse, Graduated in 2010.
11. **Mr. Jason Downing:** Impact of recently naturalized specialist bee *Centris nitida* on *Brysonima lucida*. Advisor Dr. Liu, Graduated in December 2010.
12. **Ms. Cara Cooper:** Dr. Liu (Advisor), Graduated in Summer 2012.
13. **Mr. Amour Seleman:** Dr. Bhat (Advisor), Graduated in summer 2012.
14. **Ms. Carolina Berget:** Dr. Bray (Advisor), Graduated in December 2012.
15. **Mr. Robert Schroder:** Dr. Scinto (Advisor), Graduated in December 2012.
16. **Ms. Leigh Ammon:** Dr. Melesse (Advisor), Graduated in April 2013.
17. **Mr. Andres Rodriguez:** Dr. Scinto (Advisor), Graduated in December 2013.
18. **Ms. Nina DeLa Rosa:** Dr. Shetty (Advisor), Graduated in Fall 2014.
19. **Mr. David Berthold:** Dr. Shetty (Advisor), Current

**As a Member on Master's Thesis Committees in various programs:**

1. **Mr. Dustin Mizell:** Ecologically sound golf course development. Advisor Dr. Chmielenska (Landscape Architecture), Graduated in 1999.
2. **Ms. Lorraine Ahlquist:** Nutrient cycling in Alaskan tundra in response to experimental manipulation of growing season length and soil temperature: a climate change scenario. Advisor Dr. Oberbauer (Biology), Graduated in 2003.
3. **Ms. Danielle Palow:** Effects of light and soil type on seedling growth and physiology of two INGA species. Advisor Dr. Oberbauer (Biology), Graduated in 2003.
4. **Mr. Robert Griffith:** Locating toxic molds using solid phase microextraction/gas chromatography/mass spectrometry and canine detection of microbial volatile organic compounds. Advisor Dr. Furton (Chemistry and Biochemistry), Graduated in 2005.

**As a Member on Dissertation Committees in various Doctoral programs:**

1. **Dr. Laurie McHargue:** Factors affecting the nodulation and growth of tropical woody legume seedlings. Advisor Dr. Oberbauer (Biology), Graduated in 1999.
2. **Dr. Susan Daily:** Phosphorus enrichment effects on interactions among the ecosystem components in a long-hydroperiod oligotrophic marsh in Everglades National Park. Advisor Dr. Childers (Biology), Graduated in 2000.
3. **Dr. Gregory Starr:** A multi-scale assessment of physiological processes in arctic tundra plants under natural and simulated climate change scenarios. Advisor: Dr. Oberbauer (Biology), Graduated in 2000.
4. **Dr. Joseph O'Brien:** The effects of climate on the growth and physiology of tropical rainforest trees. Advisor Dr. Oberbauer (Biology), Graduated in 2001.
5. **Dr. Flavio Moreno:** Soil carbon dynamics in primary and secondary tropical forests in Colombia. Advisor Dr. Oberbauer (Biology), Graduated in 2004.
6. **Dr. Zhangrong Chen:** Natural organic matter and colloid-facilitated arsenic transport and transformation in porous soil media. Advisor Dr. Cai (Chemistry and Biochemistry), Graduated in 2006.
7. **Dr. Ronald Mossman:** Seed dispersal and reproduction patterns among Everglades plants. Advisor Dr. Koptur (Biology), Graduated in 2009.
8. **Dr. Monica Joshi:** Drop-on Demand Inkjet technology for the development of calibration standards for use with Ion Mobility Spectrometers. Advisor Dr. Almirall (Chemistry and Biochemistry), Graduated in 2010.
9. **Dr. Sen Chen:** Reduced organic sulfur: Speciation and interaction with mercury in aquatic environment. Advisor Dr. Cai (Chemistry and Biochemistry), Graduated in Fall 2011.
10. **Dr. Paulo Olivas:** The synergetic response of Arctic ecosystems carbon exchange to manipulation of temperature and water table. Advisor Dr. Oberbauer (Biology), Graduated in Fall 2011.
11. **Dr. Ravi Godavalli:** Effect of pH and temperature on the carbonate promoted dissolutions of uranyl phosphate minerals. Advisor Dr. Tansel (Civil and Environmental Engineering), Graduated in Summer 2013.
12. **Dr. Sushant Kumar:** Energy Production through Different Mineral Oxides. Mechanical Engineering Doctoral Program, Advisor: Dr. Saxena, Graduated Fall 2013.
13. **Dr. Miguel Cruz:** Environmental and Occupational Health. Graduated in Fall 2014



**14. Ms. Zoe Pratte:** Biology Dr. Richardson - Advisor

**15. Mr. Jason Downing:** Biology Dr. Liu - Advisor

**16. Ms. Sharon Surita:** Civil and Environmental Engineering

## **OFFICES HELD IN PROFESSIONAL SOCIETIES**

Biological Control Executive Board Member: Weed Science Society of America (2005-10)

## **PROFESSIONAL ACTIVITIES AND PUBLIC SERVICE**

### *Association Memberships*

American Society of Agronomy (ASA)  
Soil Science Society of America (SSSA)  
Crop Science Society of America (CSSA)  
American Society for Microbiology (ASM)  
Weed Science Society of America (WSSA)  
International Mycorrhizologists Society (IMS)  
Society for Environmental Restoration (SER)  
American Institute for Biological Sciences (AIBS)  
National Geographic Society (NGS)  
National Academy of Biological Sciences, India (life member)

### *Referee/Reviewer*

#### **Editorial:**

Regional Editor	Allelopathy Journal (2008 – 2014)
Associate Editor:	Journal of Environmental Quality (2002- 2007)
Topic Editor:	Encyclopedia of Earth (2006 - Present)
Editorial Advisory Board Member:	Journal of Sustainable Agriculture (2008 – Present)
Editorial Advisory Board Member:	Ecosystem and Ecography (2010 – 2016)
Editorial Advisory Board Member:	Agriculture, Ecosystems, & Environment (2002- 2008)
Editorial Advisory Board Member:	Chemosphere (1999-2001)
Executive Board Member:	Biological Control (2005-2010)

#### ***Reviewer for Journals:***

**(more than 200 manuscripts reviewed for publications in listed journals)**

Soil Science Society of America Journal  
Journal of Environmental Quality  
Agronomy Journal  
Environmental Practice

Journal of Soil Contamination  
Weed Science  
Water, Air, & Soil Pollution  
Journal of Soil & Water Conservation  
Journal of Population and Environment  
Indian National Science Academy and Agriculture  
Plant and Soil  
Bioremediation Journal  
Journal of Food and Agriculture  
Journal of Allelopathy  
Biocontrol  
Chemosphere  
Applied Soil Ecology  
Journal of Chemical Ecology  
World Mycotoxin Journal  
Journal of Agriculture, and Ecosystems & Environment  
American Chemical Society book chapters  
Reviewed journal articles for USDA-ARS Scientists

***Reviewer for granting agencies:***

Research Program Reviewer: Canadian Research Secretariat WorkSafeBC (2005, 2008, 2010, 2014, 2015)  
Ad-hoc Reviewer: National Science Foundation (2002, 2004, 2005, 2006, 2010)  
Ad-hoc Reviewer NOAA (2011)  
Ad-hoc reviewer USDA-National Research Initiative  
USDA-ARS Ad-hoc reviewer  
USDA-ARS CRIS projects reviewer  
USDA/CSREES proposals reviewer  
Everglades National Park Projects reviewer  
DERM proposals reviewer  
South Florida Water Management District Projects reviewer

***Reviewer for Books (pre-publishing)***

McGraw Hills

***Reviewer for Conferences (moderator):***

Tree Islands Ecology section of the Greater Everglades Ecological Restoration, For Everglades Restoration 2050: Advancing the Science to Achieve Success – Planning, Policy, and Science Meeting, July 28 – August 1, 2008, Naples, FL

Soil Microbial Structural and Functional Diversity section of the Soil Science Society of America National Conference, October 5 – 8, 2008, Houston, TX

Ecological Society of America Annual Conference - Presided Oral Session # 48: Mutualism-

Parasitism I: Plants; Modeling Wednesday, August 6, 2003, Savannah, GA

Soil Science Society of America Annual Conference, Moderator for Soil Ecology Section, October 31 – November 4, 1999. Salt Lake City, UT

***External reviewer for tenure and promotion files:***

University of Tennessee, Knoxville, TN, 2003

University of Maine, Orono, ME, 2005

University of Illinois, Urbana Champaign. IL, 2011

New Mexico State University, La Cruze, NM, 2014

***Other:***

Minorities in Agriculture, Natural Resources, and Related Sciences (MANRRS) FIU Club Faculty Advisor

Sabbatical Leave Experience - 2007 January – 2007 May – Visiting Professor, Department of Environmental Dynamics and Management, Graduate School of Biosphere Science, Hiroshima University, 1-4-4 Kagamiyama, Higashi-Hiroshima , Hiroshima prefecture 739-8528, Japan

Soil Science Society of America Conference - Young Scientist Award Selection Panelist for Association of Agricultural Scientists of Indian Origin - November, 2-6, 2003, Denver, CO

Based on my previous involvement with Prokaryotic Interest Group (PIG) at Iowa State University, I created PIG at Florida International University to bring microbiologists together to discuss about microbiology research and education in general.

Secretary: Plant Pathology Student & Faculty Organization, Dept. of Plant Pathology, Kansas State University (1989 - 1990)

President: Cereal Research Program Research Associates Organization, Cereal Program, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) (1986 - 1987)

President: Graduate Student Organization, Graduate Program, Tamil Nadu Agricultural University (1982 - 1983)

***Subject Matter Expert/External Examiner for International Dissertation Work:***

Studies on the Establishment and Symbiotic Association of Gluconacetobacter diazotrophicus and AM Fungi and their Effect on Growth and Yield of Sugarcane (Saccharum officinarum L.) var. CoSi 98071. Department of Agricultural Microbiology, Annamalai Univerity, Tamil Nadu, India – 2011

Modified Modalities for Rapid Diagnosis of *Mycobacterium tuberculosis* and gyrA Gene

Based PCR-RFLP Assay for Differentiation of Mycobacterial Species. Department of Microbiology, PSG College of Arts and Sciences, Coimbatore, India – 2008

Biomethanation Kinetics of Kitchen Refuse and Characterization of Methanogenic Consortia. Department of Microbiology, PSG College of Arts and Sciences, Coimbatore, Tamil Nadu, India – 2006

Influence of Phosphorus Solubilizing Microorganisms and Rhizobium on *Vigna unguiculata* (L.) Walp. Department of Biology, Gandhigram Rural Institute (Deemed University), Tamil Nadu, India – 2006

Effect of Paper Mill Wastes on Soil, Groundwater and Biomass Production: A Case Study of Cholan Paper and Board Mills. Department of Environmental Sciences, Bharathiar University, Coimbatore, Tamil Nadu, India – 2006

Recycling of Tannery Sludge along with Organic Wastes by Composting. 2005 Department of Biology, Gandhigram Rural Institute (Deemed University), Tamil Nadu, India – 2005

Interactions of Vesicular Arbuscular Mycorrhiza and Plant Growth Promoting Rhizobacteria in Relation to Nutrient Management and Production of Rice in Assam. Department of Botany, Gauhati Univeristy, Guwahati, Assam, India – 2005

Studies on the Antibiotic Resistance Pattern and the Impact on Human Body Temperature of *E. Coli*. Life Sciences Department, Avinashilingam Institute (Deemed University), Coimbatore, Tamil Nadu, India - 2003

Studies on the Interactions of Arbuscular Mycorrhizae and Collar Rot of Groundnut. Department of Biology, Gandhigram Rural Institute (Deemed University), Tamil Nadu, India – 2002

## **SERVICE TO UNIVERSITY**

### ***Departmental Committees Assignments and Programs Administered***

**Co-Director:** Agroecology Program (2005-present)

**Director:** Professional Science Masters' in Environmental Policy and Management (PSM-EPM) 2014-present

**Director:** Graduate Program (2008-2015)

**Member:** Graduate Program (2002-2006, 2015)

**Faculty Mentor:** for Dr. Len Scinto (Earth & Environment), Dr. Jin He (Physics)

**Chair:** Human Resource Committee (2004-2005, 2006-2007)

**Member:** Human Resource Committee (2003-2004, 2005-2006, 2007-2008)

**Chair:** Search and Screen Committee for Aquatic Ecologist, Restoration Ecologist, Aquatic Biogeochemistry, Terrestrial Ecosystem Ecologist, two lecturers (2007-2008, 2003-2004).

**Chair:** Agroecology Faculty Position 2011-2015

**Member:** E&E STEM Transformation Institute Faculty 2014-2017

**Member:** Search and Screen Committee for Earth & Environment STEM faculty 2015-2016

**Member:** Search and Screen Committee for Global Climate Change/Field Ecologist (2002-2003)

**Chair:** Curriculum Committee (2000-2002)

**Member:** Curriculum Committee (1998-2000, 2002-2003)

**Chair:** Environmental Studies Science Task Force Committee (2005-06)

**Chair:** Environmental Studies Future Hire Strategies Committee (2005-06)

**Chair:** Ad-hoc Committee for Environmental Studies Honors Track (2005-06)

**Chair:** Environmental Studies EVR 3013 Ecology of South Florida revisions (2004-2005)

**Member:** As-hoc Committee for Environmental Studies PhD Proposal Development (2000-2001, 2004-2005)

**Member:** Ad-hoc Committee for Environmental Studies Laboratory Improvement (1998-1999)

**Member:** Undergraduate Committee (1997-1999)

**Member:** Library Committee (1996-1997)

**Member:** Space and Laboratory Committee (1997-1999)

**Chair:** Space and Laboratory Committee (1996-1997)

**Acting Chair** (Environmental Studies): June 26-27, 2003, December 22-23, 2003, and March 17-23, 2004, numerous times during 2008-09 including Acting Chair of merged Department Earth and Environment, Acting Chair of Earth and Environment and Acting Associate Chair of Earth and Environments on numerous times during 2009 -10.

### ***College and University Committees & Programs***

**Member:** President's Committee on NCAA Gender/Diversity Issues and Student-Athlete Well-Being (2010-2014).

**Chair:** Diversity Sub-Committee of President's Committee on NCAA Gender/Diversity

Issues and Student-Athlete Well-Being (2010-2014)

**Panelist:** Graduate Research Opportunities – Grant Writing Workshop, Organized by College of Arts and Sciences, November 4, 2010

**Faculty Senate:** FIU Faculty Senate Alternate (2010-2011, 2011-2013, 2013-2015, 2015-2017)

**UCCOC Committee** – Member. This is a five member committee to administer University Core Curriculum issues. Monthly meeting is required. We have met weekly basis on every Tuesday 11 – 12. Worked out Tier 1 and Tier 2 core curriculum and Gordon Writing Requirements. Spent my service hours for this committee meetings.

**Building and Environment Committee** - Member

**Tenure and Promotion Committee** – Member. Completed tenure and promotion review of 27+ files and made recommendation to Dean.

**CAS Strategic Committee** – Invited as one of the members for Graduate Education and Special Program Strategic Initiatives (2014-15)

**ICTB Director** – member of ICTB Director Search and Screen Committee.

**ARC's Director of Operations** – Member of Search and Screen Committee for the Director of Operations. Spent two days – a day for phone interviews and another day for campus interviews.

**Land Steward Position** – Search and screen for a land steward position to manage agriculture land property in Redlands. Robert Barnum was hired and I supervise Land Steward Position – now Horticulture Curator.

**Chair:** President's Access & Equity Committee (2008- 2012)

**Member:** President's Access and Equity Committee – Member (2001 – 2014)

**Chair:** Diversity and Minority Enrollment Sub-Committee of A&E Committee (2003 – 2008)

**Member:** Ad-hoc screening and selecting President's Access and Equity Award candidates on annual schedule (2003-2009)

**Member:** Ad-hoc selection committee for Grant-in-Aid Applications. Screen and select candidates for Grant-in-Aid on annual basis (2003-2010)

**Member:** Ad-hoc selection committee for Delores Auzenne Fellowship Applications. Screen and select candidates on annual basis (2003-2010)

**Member:** Search and Screen Committee for Assistant Vice-President, Human Resources. (2008-2009)

**Member:** Search and Screen Committee for Director EEOP Office, Human Resources. (2008-2009)

**Member:** Academic Judicial Committee (2007- 2010)

**Member:** Radiation Safety Committee (1999 – present)

**Nuclear Science Committee** – Member, participate in nuclear science program at FIU.

**Best Graduate Students Publication:** Served last two years to select best graduate student publication for UGS

**ICOT 2017** – Scientific Committee member.

**Member:** FIU's Hispanic Serving Institutions Strategic Planning and Discussion Group.

**Director:** The Honors College – Students Research and Artistic Initiatives (SRAI). Founding member and director (2003-2005)

**Fellow:** The Honors College (2003-2009)

**Banner Marshal:** Faculty Convocation 2003, Commencement Fall 2003, 2004, Spring 2005

**Member:** Representative from Environmental Studies for Fairchild Tropical Botanical Garden Research Service Agreement (2006)

**Member:** Representative from Environmental Studies for the Dept. of Environment and Occupational Health Graduate Program Committee (2006)

**Member:** NSF - Faculty Institutes for Reforming Science Teaching (2002 – 2008)

**Member:** Environmental Preserve Committee (1999 – 2003)

**Member:** Search and Screen Committee for Hydrologic Modeling Position (Earth Science) 2002

**Member:** Search and Screen Committee for Stable Isotope Position (Geology-SERC) 1999.

**Member:** Shade House facilities at the Preserve (2003-present).

**Representative:** College of Arts and Sciences initial meeting on School of Environment, November 17, 2003.

## *Affiliations*

Agroecology Program <http://agroecology.fiu.edu>

International Center for Tropical Botany

Fairchild Tropical Botanical Garden <http://fairchildgarden.org>

Energy Research Group <http://www.erg.fiu.edu>

ARCH program between Chemistry and Biochemistry, FIU and UM <http://arch.fiu.edu/>

The Honors College ARCH Program

International Forensic Research Institute <http://www.ifri.fiu.edu>

Florida Coastal Everglades Long-Term Ecological Research Program <http://fcelter.fiu.edu/>

Southeast Environmental Research Center <http://serc.fiu.edu>

MBRS MARC-USTAR & RISE Program <http://www.fiu.edu/~mbrs/>