CURRICULUM VITAE FOR AMBROSE O. ANORUO

OFFICE & MAILING ADDRESS

College of Agriculture and Natural Resources,
Department of Agriculture, Agribusiness & Environmental Sciences
Texas A&M University-Kingsville
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EDUCATION

Doctor of Forestry Tree Physiology/Physiological Ecology

Yale University, New Haven, Connecticut 1985-1988

Master of Forest ScienceForestryYale University, New Haven, CT.1982-1984

Master of Science Environmental Science

Southern CT State Univ., New Haven, CT. 1992-1994

Higher National Diploma Forestry
Fed. Coll. of Forest Technology, Ibadan, Nig. 1976-1980

SUMMARY OF CAREER EXPERIENCE

| Postdoctoral Fellow. | Yale University, | New Haven, CT. | 1988-1990 |
|----------------------------|---|--------------------------|------------|
| VP for Research | Ambiano Farms, Inc. | Madison, CT. | 1991-1992. |
| Adjunct Professor | South. Conn. State Univ. | New Haven, CT. | 1992-1994. |
| Assistant Professor | SC State University | Orangeburg, SC. | 1994-1998 |
| Joint Faculty | DOE/SCUREF | Savannah River Site, SC. | 1994-1999 |
| Associate Professor | SC State University | Orangeburg, SC. | 1999- 2002 |
| Tenured Asso. Prof. | SC State University | Orangeburg, SC. | 2002 |
| Professor | SC State University | Orangeburg, SC | 2003 |
| Director | Sav. River Environ. Sci. Field Station | | 1998-2005 |
| MS & Ph.D. | Committees Univ. of South Carolina Columbia, SC | | 2000-2005 |
| Member | USDA-CSREES Portfolio Review Panel | | 2009 |
| Reviewer | Journal of Environ. Engineering Science | | 2009 |
| Associate Dean. | Delaware State University, Dover, DE | | 2005-2010 |
| Member | DE State Univ. Strategic Planning Committee | | 2005-2010 |
| Member | Governor of DE Council on Forestry | | 2006-2010 |
| Member | Innovative Technologies (| Committee, DSU | 2007-2010 |

| Member | Sci. & Tech. Committee of ESCOP | 2007-2010 |
|--|---|--------------|
| | | |
| Asso. VP Res. | Texas A&M University-Kingsville (TAMUK) | 2010-2012 |
| Dean | College of Graduate Studies, TAMUK | 2010-2012 |
| Member | Texas A&M Sys. Export Control Task Force | 2010-2012 |
| Member | Grad. Ed. Advisory Committee, TX HECB | 2010-2012 |
| Member | Association of Texas Graduate Schools | 2010-2012 |
| Director | Site 55 Biological Field Station, TAMUK | 2010-2012 |
| Editor | J. of Environ. Monitoring & Restoration | 2000-2017 |
| Member | Yale School Forestry Leadership Council | 2001-2017 |
| Editorial Board | Journal of Sustainable Forestry | 2003-Present |
| Professor | College of Agriculture & Human Sci. TAMUK | 2012-Present |
| Member | Council for Assessment & Planning, TAMUK | 2013-Present |
| Program Established - BS Agriculture, Environ. Science Track | | 2015 |
| Program Established - MS Environmental Systems Management | | 2019 |
| Faculty Senate P | 2019-2020 | |

PROFESSIONAL DEVELOPMENT AND TRAINING

NASULGC Grant Writing Workshop CSREES Grant Writing Workshop NASULGC New Deans/Directors/National Program Leader's Workshop Leadership Workshop for Deans, University of Texas, Dallas, TX Distance Education Certification, Texas A&M University, Kingsville

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

| Member, Agricultural Research Directors (ARD) | 2005 - 2010 |
|---|-----------------------|
| Member, Organization of Biological Field Stations | 1996 - 2016 |
| Member Sigma XI, Scientific Research Society, Yale Chapter | 1988 - Present |
| Member, Botanical Society of America | 1996 - Present |
| Member, American Association for the Advancement of Science | 1997 - Present |
| Member, American Society for Horticultural Science | 2015 - Present |

DETAILED CAREER ACTIVITIES AND EXPERIENCE

1992-1994. Adjunct faculty, Southern Connecticut State University, New Haven, CT. Southern is one of the State of Connecticut universities with a student enrollment of about 8,000 in 1992. While on the faculty in adjunct capacity, I pursued a second MS degree in environmental science. My responsibilities and accomplishment while in the position include:

- Co-organizer, First Long Island Sound Research Conference, Southern Connecticut State University, New Haven, Connecticut.
- Session Chair, First Long Island Sound Research Conference, Southern Connecticut State University, New Haven, Connecticut.

- Award Committee, First Long Island Sound Research Conf., Southern Connecticut State University, New Haven, Connecticut.
- Taught introductory undergraduate courses in environmental science (Introduction to Environmental Science and Land-use Decisions) and plant science (Botany)

1994–2005. I secured a tenure track position as Assistant Professor of Biological Sciences at South Carolina State University, Orangeburg, SC. South Carolina State University is a state sponsored public Historically Black University with student enrollment of about 5,000 in 1994. I rose through the ranks to full tenured professor while at the institution. My responsibilities and accomplishments in those years include:

- Taught the following courses in the Department of Biological Sciences at South Carolina State University - Cell Physiology, Botany, Biological Science, Plant Physiology, Biostatistics, Land-use and Conservation, Waste Management, and Introduction to Environmental Science.
- Member of Curriculum Committee to establish minor concentration in Environmental Science, Department of Biological Sciences, South Carolina State University (SCSU).
- Introduced three new undergraduate courses in the Department of Biological Sciences, SCSU for minor in Environmental Science. The courses include ENV 300 – Introduction to Environmental Science, ENV 306 - Land Use and Conservation, and ENV 430 - Waste Management.
- Developed the Field Station concept which led to the formation of the Savannah River Environmental Sciences Field Station. The Station was managed by South Carolina State University and the DOE. Field Station membership includes 29 academic institutions, three federal departments and one private foundation. I was appointed its Director in 1998. The station hired faculty to teach its courses. Sixteen faculty members worked at the station and my experience in university administration began at the Savannah River Environmental Sciences Field Station.
- Participated in the Biology Department Committee at SCSU to restructure the non-major biology course BSC 150 to emphasize environmental science.
- Presented my research on change in population structure of the American lobsters at the Long Island Research Conference, University of Connecticut. My concentration in the second MS degree was marine science.
- Invited Guest Speaker, Institute of Science Instruction and Study (ISIS), Southern Connecticut State University, New Haven. CT.
- Presented my research on longleaf pine at the SCUREF Advisory Board Meeting, South Carolina State University.
- Invited Guest Speaker, Johnson C. Smith University, Charlotte, North Carolina (Topic: Role of field stations in undergraduate instruction).
- Presented Savannah River Environmental Sciences Field Station at the USDA/1890 Task Force in Washington, DC. The station was made a Center of Excellence for Environmental Education and Research by the USDA/1890 Task Force.

- Developed additional five new undergraduate courses, ENV 491 Soils and Hydrology, ENV 495 - Wetlands and Aquatic Ecology, ENV 492 - Wildlife Ecology and Management, and collaboratively worked with two colleagues to develop ENV 420 - Environmental Chemistry and ENV 490 - Environmental Engineering Technology.
- Introduced six graduate courses, ENV 510 Patterns and Processes in Environmental Pollution and Remediation, ENV 550 - Environmental Policy and Law, ENV 600 - Ground Water Monitoring and Remediation, ENV 610 -Environmental Restoration Technology, ENV 635 - Directed Report Writing, ENV 636 - Advanced Report Writing, and successfully started a graduate certificate program in Environmental Monitoring and Restoration at SCSU.
- Appointed to serve on the Graduate Council, South Carolina State University.
- Served on graduate committees at the School of the Environment, University of South Carolina, Columbia, SC.
- Revitalized four undergraduate courses not offered for 10 years in the Biology Department, SCSU. The courses include MASC 201 - Concepts in Marine Science, MASC - 202 Biology of Marine Fishes, MASC 301 - Analysis of Marine Pollution, and MASC 302 - Special Topics in Marine Science. These courses were added to the undergraduate courses taught every year at the Savannah River Environmental Sciences Field Station.
- Served on the Institutional Effectiveness Committee for program reaffirmation by the Southern Association of Colleges and Schools, Commission on Colleges.
- Was elected President of the Faculty Senate, South Carolina State University

2001 – I was as appointed to the Yale University School of Forestry and Environmental Science Leadership Council.

2005 – 2010. I was appointed Associate Dean for Research, College of Agriculture and Related Sciences, Delaware State University. Delaware State University is a state sponsored public Historically Black University with a student population of more than 4,500 in 2005. My responsibilities and accomplishments while serving in the position include:

- Administration and oversight of the college research programs
- Faculty supervision and evaluation
- Led the college effort in reaffirmation of degrees by the Middle States Association of Colleges and Schools.
- Was responsible at the college level for all professional degree accreditations in the College of Agriculture & Related Sciences by their accrediting organizations, example accreditation of the Department of Human Ecology dietetic program by the American Dietetic Association.
- Chairing of different college committees (see examples below).
- Introduced and implemented faculty research profile at the College of Agriculture and Related Sciences, Delaware State University. The profile model was adopted by Delaware State University for all faculty members at the time.
- Served on the Delaware State University Strategic Planning Committee.

- Wrote the Delaware State University (DSU) portion of the State of Delaware 2007-2011 USDA Plan of Work (POW). POW for the state was written jointly by DSU and the University of Delaware.
- Presented DSU research and extension programs to the university community at the Deans Forum, Delaware State University.
- Chaired the College of Agriculture Strategic Planning Committee and wrote the College's Five-Year Strategic Plan.
- Applied and defended Delaware State University's application for membership to the Chesapeake Watershed Cooperative Ecosystem Studies Unit. Delaware State University became the 11th member institution of the consortium.
- Chaired the College of Agriculture and Related Sciences Planning and Evaluation Committee. Responsibilities include: self-study in preparation for USDA College of Agriculture program review, integration of research and extension projects, and evaluation of the efficacy of service delivery to the community (2006 2007).
- Initiated and organized the National Conference on Agriculture and Natural Resource Conservation and Management to bring together agriculture and natural resource faculty and scientists in the United States and its protectorates to exchange notes and share agriculture and natural resource information.
- Appointed to serve on the Delaware State Council on Forestry for a three-year term by the Governor of the State of Delaware.
- Published the proceedings of the 1st National Conference on Agriculture and Natural Resource Conservation and Management (see Journal of Environmental Monitoring and Restoration, Vol. 3).
- Appointed to the Innovative Technologies Committee, Delaware State University.
- Started the MS degree in Agriculture with Food Science concentration at the College of Agriculture and Related Sciences, Delaware State University.
- Initiated the College of Agriculture and Related Sciences effort to expand its graduate degree programs. The College is now offering graduate degree programs in the various disciplines of agriculture. I secured funds and started the Master of Food Science program.
- Organized and hosted the Second National Conference on Agriculture and Natural Resource Conservation and Management.
- Appointed to serve on the Ad hoc Committee to reorganize the Graduate School at Delaware State University
- Appointed Chair of the sub-committee on structure of Delaware State University Graduate College.
- My idea of a center for integrated environmental research led to the formation of the Center for Integrated Biological and Environmental Research (CIBER, see ciber.desu.edu) as part of the 2008 State of Delaware EPSCoR RII-2 funding by NSF (see funded research and projects).
- Published the proceedings of the 2st National Conference on Agriculture and Natural Resource Conservation and Management (see Journal of Environmental Monitoring and Restoration, Vol. 5).
- Served on University Self-Study Committee in preparation for reaffirmation of accreditation of degrees by the Middle States Association of Colleges and Schools.

2005 – I served as external member of the tenure and promotion committee, Spelman College, Atlanta, GA and the University of South Florida, Tampa, FL.

2006 – I served on the CSREES-USDA Challenge Grant Proposal Review and Panel Committees.

2006 – I was a member of the Merit-based Award Review Panel, Institute of Agricultural and Environmental Research, Tennessee State University.

2007 – I served on the American Association for the Advancement of Science Proposal Review Committee.

2007 – I was appointed member of the Science and Technology Committee of the Experimental Station Committee on Organization and Policy (ESCOP) of the National Association of State Universities and Land-Grant Colleges (NASULGC)

2008 – I served on the proposal review and panel committees of the Rangeland Research Program.

2008 – I served as external reviewer of faculty tenure and promotion for the Department of Agricultural, Food and Resource Economics, Rutgers, The State University of New Jersey.

2008 – I was invited international guest lecturer, Niger Delta University, Bayelsa State, Nigeria. Lecture title: "Conceptual Modeling Strategies in Integrated Environmental Risk Assessment for Focused Remediation of Disputed Natural Resources."

2009 – I was appointed to serve on the USDA Panel to assess the CSREES Farm Management for Sustainability Portfolio.

2010–2013. I was appointed tenured Professor of Agricultural and Environmental Sciences, Department of Agriculture, Agribusiness and Environmental Sciences, Texas A&M University-Kingsville, and administrative positions as Associate Vice President for Research & Dean of the College of Graduate Studies. Texas A&M University-Kingsville is a member of the Texas A&M University System. Student enrollment at the university has fluctuated between 8,000 to10,000 with graduate enrollment of approximately 2,500 to 3,000 students.

My responsibilities and accomplishments as Dean of the College of Graduate Studies include:

- Successfully recruited and hired staff to fill all vacant positions in the office of graduate studies.
- Administration and oversight of all university 60 masters, Ed.D. and Ph.D. programs.
- Appointed and supervised graduate faculty that reviewed all graduate programs as mandated by the State of Texas Higher Education Coordinating Board. The purpose

was to identify non-viable programs for discontinuation or consolidation of some programs so they were viable.

- Successfully formed new graduate committees and was responsible for the supervision of all graduate committees.
- Recruitment and retention of graduate students.
- Supervision and administration of graduate scholarships and stipends.
- Identification of funding sources and graduate scholarship donors.
- Writing college annual report and was answerable to the Provost & Vice President.
- Recruitment of new graduate faculty and approval of existing faculty to graduate faculty status.
- Articulated the College of Graduate Studies mission and vision statements to align with university mission and vision statements
- Generation of annual budgets of the College of Graduate Studies such that the annual budgets aligned with the college activities to achieve its mission and vision goals.
- Collaborated with the deans of the university five colleges in professional accreditation of all graduate degree programs that required accreditation.

My responsibilities and accomplishments as Associate Vice President for Research include:

- Successfully recruited and hired staff to fill all vacant positions in the Office of Research & Sponsored Programs.
- Supervision of pre-and post-award staff to ensure a sustained daily research administration for the university.
- Generation of annual budget for the Office of Research & Sponsored Program to align with the Texas A&M University research and creative scholarship goals.
- Identification of research and creative scholarship donors, foundations and government funding agencies to support research and creative scholarship. The success here double extramural support to the university research and creative scholarship in two years.
- Doubled the number of graduate students involved in research and creative scholarship
- Successfully established four research oversight committees in compliance with federal requirements of all degree granting institutions that receive federal funds.
- Formed alliance with the Office of Technology Commercialization of the Texas A&M University System-College Station to commercialize and patent intellectual properties originating from Texas A&M University-Kingsville.

2010 – I was appointed member of the Texas A&M System Export Control Task Force

2010 – I was appointed member of the Graduate Education Advisory Committee of the Texas Higher Education Coordinating Board.

2013 – I was appointed Director, Site 55 Biological Field Station, Texas A&M University, Kingsville.

2013-2021. Returned to the classroom as tenured full professor. My responsibilities and accomplishments as a professor include:

- Appointed member of the Council for Assessment & Planning
- Introduced environmental science degree program in the Department of Agriculture, Agribusiness and Environmental Sciences and developed its degree curriculum
- Developed eight environmental sciences courses towards the environmental science degree concentration of BS Agriculture. Developed courses include: ENVS 2015 Introduction to Environmental Science; ENVS 3310 Land-use Decisions and Management; ENVS 3315 Environmental Health; ENVS 3995 Environmental Internship; ENVS 4310 Terrestrial Ecology of Natural Environments; ENVS 4320 Aquatic and Marine Ecosystems; ENVS 4390 Independent Studies in Environmental Science; ENVS 4395 Problems in Environmental Science
- Appointed chair of committee charged with the development of new environmental science degrees at BS and MS levels through the Department of Agriculture, Agribusiness and Environmental Sciences for the BS degree and joint MS in Environmental Systems Management with the College of Business.
- Secured approval for the Environmental Science degree track of the Bachelor of Science in Agriculture. The degree is resident in the Department of Agriculture, Agribusiness and Environmental Sciences.
- Introduced the MS degree in Environmental Systems Management in the Department of Agriculture, Agribusiness and Environmental Sciences.
- Developed 11 new graduate courses to be offered for the MS degree in Environmental Systems Management. The courses include: ENVS 5300 Advances in Environmental Science; ENVS 5310 Sustainable Land-use Decision & Management; ENVS 5320 North America Wetlands; ENVS 5330 Sustainability of Environmental Ecosystems; ENVS 5340 Soil & Water Conservation and Management; ENVS 5360 Environmental Economics and Sustainable Development; ENVS 5305 Project, ENVS 5306 Thesis; ENVS 5390 Advanced Studies in Environmental Science; ENVS 5395 Advanced Problems in Environmental Science; ENVS 5399 Thesis Research.
- The MS in Environmental Systems Management was approved by the State of Texas Higher Education Coordinating Board.
- Served on University Strategic Planning Committee
- Served on Committee for degree reaffirmation by the Southern Association of Colleges and School, Commission on Colleges.

2020 – International reviewer of tenure and promotion packages, The University of Punjab. Pakistan.

2021 – Services additional to regular faculty teaching and research include manuscript reviewer for the following journals: Journal of Agronomy, Journal of Agriculture, Open Access Journal of Biomedical Science (OAJBMS), International Journal of Molecular Sciences (IJMS).

2022 - Services additional to regular faculty teaching and research include manuscript reviewer for the following journals: Journal of Forest Research, Journal of Agronomy,

2023 - Services additional to regular faculty teaching and research include manuscript reviewer for the following journals: Journal of Nutrients, Journal of Plants,

GRADUATE THESIS SUPERVISED

- The effects of an exceptional drought on tree mortality and development in the national forests of East Texas.
- Effect of nutrient source on growth, development and water use efficiency of *Capsicum annum* (Jalapeno early).
- Effects of soil amendment on growth and development of *Solanum lycopersicum* var. Roma
- Effects of organic and inorganic nutrient sources on growth and development of Anaheim pepper
- Anatomical development of *Citrus sinensis* and *Solanum lycopersicum* grown with non-conventional water sources.
- Physiological development of citrus grown with non-conventional water sources.
- Sustainability of water resources in agriculture: growth and development studies of *Capsicum annuum* (pepper) using blended freshwater.
- Effect of blended freshwater on growth and development of Solanum lycopersicum.
- Comparative study of timed grass growth and development using organic and inorganic fertilizers.
- Diversity of herbaceous species in mesquite upland woodland of south Texas.
- Effect of processed organic extract on yield of *Capsicum annum*.
- Effects of organic extract and inorganic fertilizers on crop primordial initiation and nitrogen content of soil leachate.
- Timed effects of organic extract and inorganic fertilizer on growth and development of *Tagetus erecta* (African marigold).
- Effects of simulated medium salt stress on seed germination, growth and development of sorghum (*Sorghum bicolor*).
- Interaction between peanut (*Arachis hypogaea*) and tomato (*Lycopersicon esculentum*) in an agriculture intercropping system.
- Interaction of bradyrhizobium and trichoderma on growth, development and yield of *Arachis hypogaea L.* (Peanut).
- Effects of kernel size on germination, growth, development and yieldof *Arachis hypogaea L.* (Peanut).
- Effects of superabsorbent polymer-soil interaction on plant growth, development, water use efficiency and soil leachate.
- Anatomical and physiological development of *Citrus sinensis var. Marrs* grown with three water qualities.
- Effects of water quality on growth, development and yield on *Arachis hypogaea*.
- Water quality as determinant of crop quality and nutrient density in *Spinacia* oleracea.
- Effect of nitrogen source on growth, development and water use efficiency of Capsicum anuum (*Jalapeno early*).

- Effects of soil amendment on growth and development of *Solanum lycopersicum var Roma*.
- Effects of organic and inorganic nutrient sources on growth and development of Anaheim pepper.
- Morphological and anatomical development of *Citrus sinensis* and *Solanum lycopersicum* grown with non-conventional water sources.
- Morphological growth and development predictors of transpiration in *Capsicum annum*.
- Effects of organic biostimulant on golf green seashore paspalum (*Paspalum vaginatum*).
- Anatomical and morphological predictors of transpiration rate in *Epipremnum aureum*.
- Limit of deficit irrigation without compromising growth, development and yield.
- Anatomy of deficit irrigated Roma tomato.
- Root biomass and anatomy of deficit irrigated Roma tomato.

COURSES TAUGHT.

- ENVS 5320: North America Wetlands: Fall 2023, Fall 2022, Fall 2021, Fall 2020, Fall 2018 Texas A&M University-Kingsville.
- ENVS 5300: Advances in Environmental Science: Fall 2023, Fall 2022, Fall 2021, Fall 2020, Texas A&M University-Kingsville.
- ENVS 3310: Land-use Decisions & Management: Fall 2023, Fall 2022, Summer 2020, Fall 2018 Texas A&M University-Kingsville.
- ENVS 4320: Aquatic and Marine Ecosystems: Fall 2023, Fall 2022, Fall 2021, Fall 2020, Texas A&M University-Kingsville.
- ENVS 2315: Introduction to Environmental Science: Fall 2022, Fall 2021, Fall 2020, Texas A&M University-Kingsville.
- **ENVS 3315: Environmental Health: Spring 2025,** Spring 2023, Spring 2022, Spring 2019 Texas A&M University-Kingsville.
- **ENVS 4310: Ecology of Natural Environments: Spring 2025,** Spring 2023, Spring 2022, Spring 2019, Texas A&M University-Kingsville.
- ENVS 5310: Advanced Land-use Decisions & Management: Summer 2022, Summer 2021 Texas A&M University-Kingsville.
- **ENVS 5330: Sustainability of Environmental Ecosystems: Spring 2025,** Spring 2023, Spring 2022 Texas A&M University-Kingsville

- **ENVS 5340: Soil and Water Conservation: Spring 2025,** Spring 2023, Spring 2022, Summer 2021, Fall 2020, Texas A&M University-Kingsville.
- PLSS 4331: Greenhouse Crop Production: Spring 2019 Texas A&M University-Kingsville.
- PLSS 5390: Advanced Ecology of Natural Environments: Spring 2019 Texas A&M University-Kingsville.
- PLSS 6390: Advanced Land-use Decisions and Management: Fall 2018 Texas A&M University-Kingsville.
- PLSS 3334: Weed Control: Spring 2014 Texas A&M University-Kingsville.
- PLSS 3995: Internship. Summer 2024, Summer 2023, 2022, 2016, 2017, 2018, 2019, 2020, 2021, Fall 2013, Spring 2014, Summer 2014, Spring 2015, Summer 2015, Fall 2015, Texas A&M University-Kingsville.
- PLSS 4331: Greenhouse Crop Production. Spring 2014, Spring 2016, Spring 2017 Texas A&M University-Kingsville.
- PLSS 4390: Introduction to Environmental Science. Spring 2013, Fall 2014, Fall 2015, Fall 2016– Texas A&M University-Kingsville.
- PLSS 4390: Scientific Communication. Spring 2013 Texas A&M University-Kingsville.
- PLSS 4390: Terrestrial Ecosystems. Spring 2015, Spring 2016, Spring 2017 Texas A&M University-Kingsville.
- PLSS 4395: Problems in Plant and Soil Science. Spring 2014 Texas A&M University-Kingsville.
- PLSS 5305: Graduate Research Project. Fall 2013 Texas A&M University-Kingsville.
- PLSS 5306: Thesis. Fall 2013 Texas A&M University-Kingsville.
- PLSS 5390: Advanced Scientific Communication. Spring 2013 Texas A&M University-Kingsville.
- PLSS 5390: Advances in Environmental Science. Fall 2014, Fall 2015, Fall 2016 Texas A&M University-Kingsville.
- PLSS 5390: Advanced Crop Physiology. Fall 2014, Fall 2015 Texas A&M University-Kingsville.
- PLSS 5390: Thesis. Fall 2016 Texas A&M University-Kingsville.

- PLSS 6390: Advances in Environmental Science. Fall 2013, Fall 2018 Texas A&M University-Kingsville.
- PLSS 6390: Advanced Terrestrial Ecosystems. Spring 2015, Spring 2016, Spring 2017 Texas A&M University-Kingsville.
- PLSS 6390: Advanced Crop Physiology. Fall 2013 Texas A&M University-Kingsville.
- UNIV 1101: Learning in Global Context I. Fall 2013 (Sections 104, 105, 106), Fall 2014 (Sections 103, 104, 105), Fall 2015 (Sections 103, 104, 105) Texas A&M University-Kingsville.
- UNIV 1102: Learning in Global Context II. Spring 2014 (Sections 104, 105), Spring 2015 (Sections 103, 104, 105), Spring 2017 (Sections 103, 104, 105) Texas A&M University-Kingsville.
- B 151: Introductory Botany. Fall and Spring 1994-2005 ... South Carolina State University.
- B 310: Plant Physiology. Fall and Spring 1994-2005 ... South Carolina State University.
- B 401: Cell Physiology. Fall 1994 South Carolina State University.
- ENV 302: Introduction to Biostatistics. Fall 1998, Fall 2000, Fall 2002, Fall 2004 ... South Carolina State University.
- ENV 306: Land-use Decisions. Summer 1998- Summer 2005... South Carolina State University.
- ENV 430: Waste Management. Spring 1999, Spring 2001, Spring 2003, Spring 2005... South Carolina State University.
- EVN 430: Waste Management. Summer 1998-Summer 2005... South Carolina State University.
- ENV 300: Introduction to Environmental Science. Fall 1998 Fall 2005... South Carolina State University.

CAREER RESEARCH AND FUNDED PROJECTS

Joint Faculty Research Program: Morphological Separation of longleaf pine (PI) Funding Agency: DOE; Amount: \$80,000.00; Duration: 1995-1999.

Edisto River Environmental Project: The Effects of Land Use on Water Quality (PI) Funding Agency: DOE; Amount: \$136,000.00; Duration: 1995-1997.

Recycling a Point Source Solid Waste (Yard Waste) to Reduce Ground Water Pollution (Co-PI)

Funding Agency: DOE; Amount: \$200,000.00; Duration: 1995-1997.

Experiential Learning of Agricultural Science by Interagency Collaboration (PI) Funding Agency: USDA-CSREES; Amount: \$176,988.00; Duration: 1995-1998.

Center for Network Resources and Training (Co-PI)

Funding Agency: NASA; Amount: \$3.1 million; Duration: 1996-2000.

Learning Agricultural Science Through Interagency Field Station (PI)

Funding Agency: USDA-CSREES; Amount: \$199,758.00; Duration: 1997-1999.

An Environmental Clean Bill of Health for a Post Perturbation Site (PI) Funding Agency: DOE; Amount: \$118,159.00; Duration: 1997-2000.

Field Station Courses: Development and Offering (PI)

Funding Agency: DOE; Amount: \$950,850.00; Duration: 1997-2005.

Field Station Research Lab Equipment (PI)

Funding Agency: USDA-NRCS; Amount: \$40,000.00; Duration: 1997-1998.

Field Station Classrooms, Labs, and Infrastructure (PI)

Funding Agency: DOE; Amount: \$184,500.00; Duration: 1997-1998.

Center of Excellence for Environmental Sciences Education and Research (PI) Funding Agency: USDA-NRCS; Amount: \$380,000.00; Duration: 2000-2005.

Experiential Learning of Agricultural Science for Undergraduates (PI)

Funding Agency: USDA-CSREES; Amount: \$179,971.00; Duration: 1999-2000.

Recruitment of Students for Food and Agricultural Science Through Experiential Learning (PI)

Funding Agency: USDA-CSREES; Amount: \$200,000.00; Duration: 2001-2003.

Field Station Renewable Resource Courses (PI)

Funding Agency: USDA-Forest Service; Amount: \$150,000.00; Duration: 2000-2003.

Regional Studies in Sustainable Management of Coastal and Marine Habitats for Decision Making (PI South Carolina State University)

Funding Agency: NOAA; Amount: \$12.48 million (\$1.25 million for SCSU); Duration: 2000-2005.

Effect of Energy Technologies on Environmental Systems (Co-PI) Funding Agency: NSF-REU; Amount \$175,400; Duration: 2005-2007.

Support for Sustainable Agriculture Conference

Funding agency: USDA-SARE; Amount \$1000; Duration: 2006.

Structured Educational Program to Lock-in Students to USDA Food Safety Professions (PI)

Funding Agency: USDA-CSREES; Amount: \$300,000; Duration: 2006-2009.

Energy and Sustainability (E&S) AGEP Mini-Grant (PI)

Funding Agency: NSF (Award number 1308200) through Texas A&M University,

College Station. Amount: \$6,900; Duration: 2016-2017.

Student involvement and membership retention for National Junior Santa Gertrudis Breeders Association.

Funding Agency: National Santa Gertrudis Breeders Association. Amount \$10,000

INSTITUTIONAL FUNDED PROJECTS DIRECTED INCLUDING PROPOSAL DEVELOPMENT AND WRITING.

Regional Studies in Sustainable Management of Coastal and Marine Habitats for Decision Making (Team Leader - Delaware State University)
Funding Agency: NOAA; Amount: \$12.5 million (\$1.1 million for DSU); Duration:

2006-2011.

State of Delaware EPSCoR-RII-2. (Co-Team Leader)

Funding Agency: NSF; Amount: \$20 million (\$4 million for Delaware State University);

Duration: 2008 – 2012.

HONORS AND CITATIONS RECEIVED

1982 – The Nigeria Government post graduate scholarship to study at Yale University.

1985 – Yale Scholarship for doctoral degree program.

1993 – Certificate of appreciation from Southern Connecticut State University, Journalism and Mentoring Workshop for Minority High School Students.

1994 – Certificate of appreciation from the Department of Environmental Education and Sciences, Southern Connecticut State University for providing mentorship experience to LEARNscience TM Associates (in-service Master's teachers) in the summer of 1993.

1995 – Commendation from the Department of Criminal Justice of South Carolina State University for internet learning experience I provided to students enrolled in CJ 401.

1996 – Teacher of the Year, Department of Biological Sciences, South Carolina State University

1996, 2000 and 2003 - Who's Who Among America's Teachers recognized my work with students

1996, 1997 and 1998 – Received certificate of recognition from South Carolina Alliance for Minority Participation (SCAMP) for providing research mentorship to SCAMP students.

1996 – Recognition from the United States Forest Service for innovative ideas leading to the formation and creation of the Savannah River Environmental Sciences Field Station.

1996 and 1998 - My work with students at the Savannah River Site was cited by the Aiken Standard Newspaper in South Carolina.

1996 - The South Carolina Black Media Group published the Savannah River Environmental Sciences Field Station and its activities in its July issue.

1996 - My research project with undergraduate students on longleaf pine was cited by the South Carolina Universities Research and Education Foundation News in October.

1996, 1997, 1998, 1999, 2000, 2001 and 2002 – Was nominated for seven consecutive years to teach botany at the South Carolina Governor's School for Science and Mathematics.

1997 – Was cited for my work with undergraduate students by the Time and Democrat Newspaper of August 10, 1997 in Orangeburg, SC.

1997 - The Savannah River Site News cited student activities in my course "Land Use and Conservation" in its January issue.

1997 - My hands-on approach to teaching gave rise to the Field Station and this was cited by the Journal of Environmental Health in October.

1999 – Received the National Hammer Award from the Office of the Vice President of the United States for work performed at the Savannah River Environmental Sciences Field Station.

1999 - The State, the leading newspaper in Columbia, SC recognized the Field Station in its front page for the innovative approach to undergraduate education in environmental science and engineering.

1999 – Received the Deans Award of Appreciation in recognition of outstanding leadership in innovative approach to education, and establishment of an environmental science field station.

1999 – Received the Deans Award of Appreciation in recognition of outstanding undergraduate research.

- 2000 South Carolina State University was awarded the Government Seamless Award by the US Forest Service for the innovative educational activities at the Savannah River Field Station.
- 2000 Yale University profiled my work at the Savannah River Site to honor my accomplishment in receiving the National Hammer Award.
- 2000 Received the Dean's Award of Appreciation in recognition of outstanding leadership in innovative approaches to undergraduate education and the endowment of the Savannah River Environmental Sciences Field Station.
- 2000 Received the Deans Award of Appreciation in recognition of outstanding accomplishments in innovative educational processes: "CBVEL", papers and presentations.
- 2005 Received ten-year outstanding service award, Department of Biological and Physical Sciences, South Carolina State University
- 2005 Received ten-year service recognition from the State of South Carolina
- 2005 Received Hodge Hall Pride Award for being selected President of Faculty Senate, South Carolina State University
- 2007 Received the FFA award for my work with FFA students at Delaware State University
- 2018 Received the Senior Faculty Teaching Award by the College of Agriculture, Natural Resources & Human Sciences, Texas A&M University-Kingsville

PUBLICATIONS

- Aderinto, R.F.; Ortega-S. J.A.; **Anoruo, A.O.**; Machen, R.; and Turner, B.L. **2020**. Can the tragedy of the commons be avoided in common-pool forage resource systems? An application to small-holder herding in the semi-arid grazing lands of Nigeria. Journal of Sustainability 2020, 12, 5947; doi:10.3390/su12155947.
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- **Anoruo, A.O. 1994**. Biotechnology, Growth, Development and Wood Quality of Caribbean Pine (Pinus caribaea Mor.). Yale Ph.D. Thesis. U.M.I. Publishing Company, Ann Arbor, Michigan. 150 p.
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- **Anoruo, A.O.;** Turner, B.L.; Garcia, M.R.; Nelson, S.D. and Donato-Molina, M.C. **2024**. Morphological and anatomical development of *Solanum lycopersicum* seedlings grown with non-conventional water. Int. J. Agri. Res. Env. Sci.:5(1):1–4. DOI: 10.51626/ijares.2024.05.00039
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- Berlyn, G. P.; Anoruo, A. O.; Beck, R. C. and Cheng, J. 1987. DNA content polymorphism and tissue culture regeneration in Caribbean pine. Can. J. Bot. 65: 954 961
- Berlyn, G. P.; Royte, J. L. and **Anoruo**, **A. O. 1990**. Cytophotometric differentiation of high elevation spruces: Physiological and ecological implications. Stain Tech. 65:1-13.
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- Berlyn, G.P.; **Anoruo, A.O.**; Royte, J.L.; Boyce, R.L.; Silver, W.L.; Johnson, A.H. and Vann, D.L. **1989**. Genetic characterization of high elevation spruce populations of the northeast and its possible relationship to air pollution as measured by branch chamber experiments P, II-16-62 In Adams, M. B. & Eagar, C. (eds.) Air Pollution and Winter Injury of Red Spruce. U.S.D.A. Forest Service. Northeastern Forest Experiment Station, 370 Reed Road, Broomall, PA 19008.

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- Dewez, N. P.; Xi, W.; Chaudhary, T.; Duffie, D.R.; Rideout-Hanzak, S.; **Anoruo, A.O. 2024.** Predicting changes in aboveground biomass in central East Texas forests under drought and climate change. J. Sust. Forestry (In review)
- Haakonsen, H.O. and **Anoruo**, **A.O. 1994**. Tagging and Migration of the American lobster (*Homarus americanus*). Rev. Fish. Sci. 2(1): 79 93.
- Lebaka, R.; Turner, B.; Nelson, S. and **Anoruo**, **A. 2023**. Studies on production of Anaheim pepper in greenhouse media supplemented with organic and inorganic nutrient sources, and water conservation. J. Hort. Sci. 18(2):357 362. DOI: https://doi.org/10.24154/jhs.v18i2.2005
- Meir-Valderrama L.; Ledezma J.; Gibson K.; **Anoruo A.**; and Turner B. **2024**. Why is reducing the dead zone in the Gulf of Mexico such a complex goal?- Understanding the structure that drives hypoxic zone formation via System Dynamics. Systems **2024**, *12*(9), 326; https://doi.org/10.3390/systems12090326
- Meagher, M.L.; **Anoruo, A.O.**; Turner B.L.; Holland P.W.; Nelson S.D. and Donato-Molina, M.C. **2024**. Patch growth of seashore paspalum (*Paspalum vaginatum*) treated with inorganic fertilizer and organic biostimulant. Open J Environ Biol 9(1): 010-014. DOI: https://dx.doi.org/10.17352/ojeb.000041.
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- Morgan, E.I.; Zamora, E.; Nelson, S.D.; Donato-Molina, M.C. and **Anoruo, A. 2024**. Effects of deficit irrigation in pepper plants (*Capsicum annum*) grown under greenhouse conditions. World J. Agric. & Soil Sci. 9(2):1-7. https://doi.org/10.33552/WJASS.2024.09.000709.
- Neelipally Reddy, R.T.K.; **Anoruo, A.O.** and Nelson, S. **2020**. Effect of Co-inoculations of *Bradyrhizobium* and *Trichoderma* on Growth, Development and Yield of *Arachis hypogaea* L. (Peanut). Agronomy 10:1415; doi:10.3390/agronomy10091415.
- Rodriquez, J.; **Anoruo, A.O.**; Jifon, J. and Simpson, C. **2019**. Physiological Effects of Exogenously Applied Reflectants and Anti-Transpirants on Leaf Temperature and Fruit Sunburn in Citrus. Plants 8:549; doi:10.3390/plants8120549

- Xi, W.; Fugui, W.; Peili, S.; Erfu, D.; **Anoruo, A.O.**; Bi, H.; Rahmlow, A.; He, B. and Li, W. **2014**. Challenges to sustainable development in China: a review of six large-scale forest restoration and land conservation programs. J. Sust. Forestry 33:435-453.
- Yang, Z.; Reiter, M. and **Anoruo**, **A.O. 2008**. Application of ArcGIS to examine the relationship between changes in forest fragmentation and land development in the State of Delaware. JEMREST 5:221-232.

Selected Reports and Conference Presentations

- **Anoruo, A.O.**, Blake, J.I. and Salley, J.D. 1998. Thirty-two-year results of open pollinated progeny tests of longleaf pine (<u>Pinus palustris</u> Mill.) in South Carolina. Proceedings of the Conservation Research, Riverbank Society, Columbia, SC. Section No.4.
- **Anoruo, A.O.** 1995. Edisto River Environmental Project: Preliminary Results of Late Summer Sampling. Proceedings of the 4th South Carolina Environmental Symposium, Myrtle Beach, South Carolina.
- **Anoruo, A.O.**, H. Brantley and A.K. Satpathy. 1996. Change in population structure and size composition of the American lobster (*Homarus americanus*) in Central Long Island Sound. Proceedings, Third Long Island Sound Res. Conf., Uni. Conn., Groton. p 65-71.
- **Anoruo, A.O.** 1997. The Savannah River Environmental Sciences Field Station: Past, Present and Future. Paper submitted to the United States Federal Government and public agencies to solicit funds for the field station.
- **Anoruo, A.O.** and Salley, J.D.. 1997. Center of Excellence for Environmental Sciences Education and Research. Concept presented and submitted to the USDA/1890 Task Force. 19p.
- **Anoruo, A.O.** 1998. Edisto River Environmental Project: Effect of Landuse on Water Quality. Final Report of Funded Project Submitted to SCUREF. 21p.
- **Anoruo, A.O.** and Salley, J.D. 1998. Experiential Learning of Agricultural Science by Interagency Collaboration. Final Report of Funded Project Submitted to USDA through the Capacity Building Program of the Cooperative State Research Education and Extension Service.
- **Anoruo, A.O.** 1999. Learning Agricultural Science Through Interagency Field Station. Final Report of Funded Project Submitted to USDA through the Capacity Building Program of the Cooperative State Research Education and Extension Service.
- **Anoruo, A.O.** 2008. Conceptual Modeling Strategies in Integrated Environmental Risk Assessment for Focused Remediation. Invited public lecture at the Niger Delta University, Nigeria. The lecture was attended by over 300 people including oil company

executives and resulted to the planned MOU between Delaware State University and Niger Delta University for environmental remediation and restoration effort in the Niger Delta region of Nigeria.

Haakonsen, H.O.; Morgan, W.; **Anoruo, A.O.** and Richardson, B. 1992. The application of Ultrasonic Tracking Strategies for Monitoring Movement of the American Lobster (*Homarus americanus*). Proc. Long Island Sound Res. Conf. Southern Connecticut State University, New Haven. October 23 - 24, 1992.

Hunter, W;, **Anoruo**, **A.O.** and Satpathy, A. 1996. Nitrate nitrogen in the Edisto River. 53rd Annual Joint Meeting of National Institute of Science/BETA KAPPA, North Carolina A&T State University, Greensboro, North Carolina.

Hunter, W.; **Anoruo, A.O.** and Satpathy, A. 1997. Seasonal and interbasin dynamics of nitrate -nitrogen in the Edisto River. 54th Annual Joint Meeting of National Institute of Science/BETA KAPPA, Southern University and A&M College, Baton Rouge, Louisiana.

Dewez, N. P.; Xi, W.; **Anoruo, A.O.**; Rideout-Hanzak, S.; Duffie, D.R.; Subedi, M.R.; Chaudhary, T. and Estabrook, T. 2022. The effects of an exceptional drought on tree mortality and development in the national forests of East Texas. Ecological Society of America Conference, Montreal, Canada.

Numerous other conference and public lectures, and poster presentations through my career as are not listed here.