

## CURRICULUM VITAE FOR AMBROSE O. ANORUO

### OFFICE & MAILING ADDRESS

College of Agriculture and Human Sciences,  
Department of Agriculture, Agribusiness & Environmental Sciences  
Texas A&M University-Kingsville  
700 University Boulevard, MSC 228  
Kingsville, TX 78363  
Phone: (361) 593-2426  
Cell: (803) 347-3791  
Email: kuaoa001@tamuk.edu

### EDUCATION

<b>Doctor of Forestry</b> Yale University, New Haven, Connecticut	<b><i>Tree Physiology/Physiological Ecology</i></b> 1985-1988
<b>Master of Forest Science</b> Yale University, New Haven, CT	<b><i>Forestry</i></b> 1982-1984
<b>Master of Science</b> Southern CT State Univ., New Haven, CT	<b><i>Environmental Science</i></b> 1992-1994
<b>Higher National Diploma</b> Fed. Coll. of Forest Technology, Ibadan, Nig.	<b><i>Forestry</i></b> 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, Texas A&M Univ.	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. Texas A&M Univ.	2012-Present
Member	Council for Assessment & Planning, Texas A&M Univ.	2013-Present
Program Initiator - BS Agriculture, Environ. Science Track		2015
Program Initiator - MS Environmental Systems Management		2019
Faculty Senate President, Texas A&M University-Kingsville		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
Permanent Member, Mycology Society of Nigeria	2008 - Present

### **DETAILED CAREER ACTIVITIES AND EXPERIENCE**

### **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. 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. 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. 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 for all professional degree accreditations 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.
- 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 is 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 is the 11<sup>th</sup> 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 1<sup>st</sup> 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 - Food Science 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](http://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 2<sup>st</sup> 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.

2010–2020. 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 to 10,000 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

2013-2010. 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.

### **RECENT GRADUATE THESIS CHAIRED**

- 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 *Tagetes 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 yield of *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*

### **COURSES TAUGHT.**

**ENVS 2315: Introduction to Environmental Science: Fall 2020, Fall 2018** - Texas A&M University-Kingsville.

**ENVS 4320: Aquatic and Marine Ecosystems: Fall 2020** - Texas A&M University-Kingsville.

**ENVS 5300: Advances in Environmental Science: Fall 2020** - Texas A&M University-Kingsville.

**ENVS 5340: Soil and Water Conservation: Fall 2020** - Texas A&M University-Kingsville.

ENVS 3315: Environmental Health: Spring 2019 - Texas A&M University-Kingsville.

ENVS 4310: Ecology of Natural Environments: Spring 2019 - 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.

ENVS 3310: Land-use Decisions & Management: Summer 2020, Fall 2018 - 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. Fall 2013, Spring 2014, Summer 2014, Spring 2015, Summer 2015, Fall 2015, Summer 2016 - 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 2012, 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. Spring 2012, Fall 2012, 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. Spring 2012, Spring 2013, 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 2012, Fall 2016 - Texas A&M University-Kingsville.

PLSS 6390: Advances in Environmental Science. Fall 2013, Fall 2018 - Texas A&M University-Kingsville.

PLSS 6390: Patterns and Processes in Terrestrial Ecosystems. Spring 2012 - 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 2012, Fall 2013 - Texas A&M University-Kingsville.

UNIV 1101: Learning in Global Context I. Fall 2012 (Sections 102, 103, 151, 152), 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 2013 ( Sections 102, 103, 105, 106), 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.

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

Funding Agency: NOAA; Amount: \$12.5 million (\$1.1 million for DSU); Duration: 2006-2011.

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

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

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

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

Duration: 2008 – 2012.

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

### **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™ 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.

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 - 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 of SC Newspaper 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 approaches 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 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 SRESFS

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., J.A. Ortega-S., **A.O. Anoruo**, R. Machen, and B.L. Turner. 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.

Anadu, D.I., **A.O. Anoruo** and R. Whitmore. 2007. The plankton dynamics of the ACE (Ashepoo, Combahee, and Edisto) Basin. *Journal of Environmental Monitoring and Restoration*. 3: 34-41.

**Anoruo, A. O.** and G. P. Berlyn. 1991. Ontogeny of elevated nuclear DNA during embryogenesis in *Pinus rigida* Mill. *Nig. J. Biotech.* 7:209 - 220

**Anoruo, A. O.** and G.P. Berlyn. 1993. Caribbean pine in sustainable tropical forestry: Distribution, taxonomy, ecology, biotechnology and silvics. *J. Sust. For.* 1:1-23

**Anoruo, A.O.** and G.P. Berlyn. 1993. Effect of rate of growth and development on needle photosynthate and phloem transport in Caribbean pine (*Pinus caribaea* Mor.). *J. Sust. For.* 1:127-141

**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.

**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.** and J.I. Blake. 1996. Variation in guard cell size, interstomatal spacing and stomatal frequency in longleaf pine along latitudinal and longitudinal gradients. *J. Sust. For.* 5:169 - 178.

**Anoruo, A.O.**, Blake, J.I. and Salley, J.D. 1998. Thirty two year results of open pollinated progeny tests of longleaf pine (*Pinus palustris* Mill.) in South Carolina. Proceedings of the Conservation Research, Riverbank Society, Columbia, SC. Section No.4.

**Anoruo, A.O.**, C. Jagoe, J.I. Blake and J.D. Salley. 2002. Long-term effects of environmental radiocesium (137 Cs) on forest growth and development. *Journal of Environmental Monitoring and Restoration* 1(1): 1-13

Berlyn, G. P., **A. O. Anoruo**, A. H. Johnson, D. R. Vann, R. Strimbeck, R. L. Boyce and W. L. Silver. 1993. Effects of filtered air and misting treatments on cuticles of red spruce needles on whiteface mountain, New York. *J. Sust. For.* 1(1):25 – 47.

Berlyn, G. P., **A. O. Anoruo**, and R. C. Beck. 1990. Optical techniques to measure genetic instability in cell and tissue cultures, In Y. P. S. Bajaj (ed.). *Biotechnology in Agriculture and Forestry* Vol. 2. Springer-Verlag, Berlin, Heidelberg, New York.

Berlyn, G. P., **A. O. Anoruo**, R. C. Beck and J. Cheng. 1987. DNA content polymorphism and tissue culture regeneration in Caribbean pine. *Can. J. Bot.* 65: 954 - 961

Berlyn, G. P., J. L. Royte, and **A. O. Anoruo**. 1990. Cytophotometric differentiation of high elevation spruces: Physiological and ecological implications. *Stain Tech.* 65:1-13.

Berlyn, G. P., S. Kohls, and **A.O. Anoruo**. 1991. Biotechnology of Caribbean pine. In Y. P. S. Bajaj (ed.). *Biotechnology in Agriculture and Forestry* Vol. 3. Springer-Verlag, Berlin, Heidelberg, New York, Tokyo.

Berlyn, G.P., **A.O. Anoruo**, J.L. Royte, R.L. Boyce, W.L. Silver, A.H. Johnson, and D.L. Vann. 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.

Haakonsen, H.O. and **Anoruo, A.O.** 1994. Tagging and Migration of the American lobster (*Homarus americanus*). *Rev. Fish. Sci.* 2(1): 79 – 93

Neelipally, R.T.K. Reddy, **A.O. Anoruo**, and S. Nelson. 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



Rodriguez, J., **A.O. Anoruo**, J. Jifon, and C. Simpson. 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

Weimin Xi, W. Fugui, S. Peili, D. Erfu, **A.O. Anoruo**, B. Huaxing, A. Rahmlow, H. Binhui and L. Wenhua. 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., M. Reiter and **A.O. Anoruo**. 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 Major Reports**

**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 J.D. Salley. 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 J.D. Salley. 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., W. Morgan, **A.O. Anoruo** and B. Richardson. 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. 53<sup>rd</sup> 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. 54<sup>th</sup> Annual Joint Meeting of National Institute of Science/BETA KAPPA, Southern University and A&M College, Baton Rouge, Louisiana.

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