



2003-04
Certificación número 82

Yo, Sylvia Tubéns Castillo, Secretaria Ejecutiva del Senado Académico de la Universidad de Puerto Rico en Cayey, CERTIFICO:

Que el Senado Académico, en su reunión ordinaria del jueves 20 de mayo de 2004, tuvo ante su consideración la posibilidad de otorgar doctorados honoris causa al Dr. Frank H. Wadsworth y al Dr. Ariel Lugo.

Luego de la exposición de rigor, el Senado aprobó por unanimidad la siguiente

CERTIFICACIÓN:

El Senado Académico aprobó el que se otorguen doctorados honoris causa al Dr. Frank H. Wadsworth y al Dr. Ariel Lugo en una actividad especial a esos fines que se llevará a cabo durante el primer semestre del año académico 2004-05.

Y, PARA QUE ASÍ CONSTE, expido la presente Certificación en Cayey, Puerto Rico, el día veinticuatro de mayo de dos mil cuatro.

Sylvia Tubéns Castillo
Sylvia Tubéns Castillo
Secretaria Ejecutiva

Vo. Bø.

Rafael Aragunde
Rector y Presidente
Senado Académico



FRANK WADSWORTH

Frank H. Wadsworth llegó a Puerto Rico en 1942 y, desde entonces, su continua colaboración a la dasonomía tropical de nuestra Isla, el Caribe y de toda la América Latina ha sido tan amplia y valiosa como sus acertados trabajos de investigación científica relacionados con tan importante materia. El ancho espectro de logros profesionales del doctor Wadsworth hoy abarca a todos los países tropicales, donde la labor magisterial de tan distinguido nombre de ciencias ha creado secuelas de discípulos inspirados en las enseñanzas sabias del maestro.

Este reconocido científico, doctorado por la Universidad de Michigan en 1950, con una especialidad en Silvicultura, ha sido el responsable de fomentar en Puerto Rico y el Caribe la Dasonomía Tropical científica, desarrollando amplios estudios sobre el crecimiento de bosques tropicales. Bajo su liderazgo se alianza en Puerto Rico la misión del Instituto de Dasonomía Tropical (hoy, Instituto Internacional de Dasonomía Tropical). Asimismo, ha dirigido la primera y única revista forestal caribeña, *The Caribbean Forester*.

El doctor Wadsworth ha sido reconocido en múltiples ocasiones por su prolífica labor. Perteneció a la prestigiosa asociación Sigma Xi, como premio a su excelencia como estudiante de Ciencias. Igualmente, el Departamento de Agricultura Federal lo premió en 1964 por su excelencia científica. En 1973 se le galardona con el Premio de Dasonomía Internacional Bernhard Eduard Fernow y se le confiere una Membresía Honoraria Vitalicia a la Asociación Americana de Dasonomía. Además, en 1979 recibe otra Membresía Honoraria Vitalicia, esta vez de la Sociedad de Historia Natural de Puerto Rico. En 1980 recibe sendas distinciones; una de la Junta de Calidad Ambiental de Puerto Rico, por sus contribuciones a la política de conservación de nuestros recursos naturales; y la otra, de la Agencia de Protección Ambiental de los Estados Unidos, quien le otorgó un Premio Especial de Mérito por sus esfuerzos para mejorar el ambiente. La Universidad del Estado de Nueva York le confirió un Doctorado Honoris Causa en 1994.

La nómina de trabajos científicos y de consultorías especializadas que ha realizado el Doctor Wadsworth es tan numerosa como los abundantes años de experiencia profesional que hoy contempla este reconocido intelectual. Esos incontables trabajos se recogen en importantes revistas especializadas de los Estados Unidos, Puerto Rico, Indonesia, Venezuela, Costa Rica, México, Panamá, Italia, Chile, Suiza, Brasil, India, entre otros. Asimismo, ha publicado extensos libros como el titulado *Los árboles comunes de Puerto Rico y las Islas Vírgenes*. Igualmente, además de haber ocupado las máximas puestos en la dirección del Instituto Tropical de Bosques, ha difundido su sabia enseñanza en diferentes universidades dentro y fuera de Puerto Rico. Todo esto, alternándolo con una continua labor de consultoría de varios proyectos relacionados con la conservación de bosques, reforestación y recursos naturales que aún realiza o ha realizado en países como Puerto Rico, los Estados Unidos, Santo Domingo, Argentina, Islas Vírgenes, Italia, entre tantos.

En esta significativa Colación de Grados, el Recinto Universitario de Mayagüez reconoce la inmensa contribución que realiza el Doctor Frank H. Wadsworth al mundo de las ciencias y le confiere el grado académico de Doctor Honoris Causa en Ciencias Agrícolas, con el especial agradecimiento de esta tierra cuya policromía de verdes él tanto ha amado y ayudado a conservar.

Apr-13-04 12:16P

CURRICULUM VITAE

Frank H. Wadsworth

Origin: Born Chicago, Illinois, USA 1915

Education: BSF Forest production, U. Michigan
 MF Forest succession in Central Alaska, U. Michigan
 PhD Management of Caribbean National Forest, U. Michigan

Employment: 1978-present - Research Forester
 Institute of Tropical Forestry, USDA, Forest Service,
 Puerto Rico
 1956-1978 - Director
 Institute of Tropical Forestry
 1942-1956 - Silviculturist
 Institute of Tropical Forestry
 1938-1942 - Silviculturist
 Southwestern Forest Experiment Station, FS, Arizona

Experience: Managed Caribbean National Forest, 1943-1974
 Directed 16 3-month international tropical forestry short
 courses
 Taught graduate silviculture, U. Andes, Venezuela
 Forestry consultancies in 15 tropical countries
 Some 90 published technical articles

Affiliations: Caribbean Natural Areas Institute
 Silvicultural Study Group, North American Forestry
 Commission
 International Society of Tropical Foresters, Editor of ISTF
 NEWS, 12 years

CURRICULUM VITAE

Frank H. Wadsworth

Education:

University of Michigan
BSF Forest Production
MF Forest Succession in Central Alaska
PhD Management of Caribbean National Forest

Employment:

1978-Present, Research Forester, Institute of Tropical Forestry
1956-78 Director, Institute of Tropical Forestry, Puerto Rico
1942-56 Silviculturist, Tropical Forest Experiment Station, Puerto Rico

Experience:

Consultancies in 17 tropical countries
Teaching graduate level tropical silviculture, Universidad de los Andes, Venezuela
Publication: 90 technical articles

Current affiliations:

Director: Caribbean Conservation Association
Director: American Forestry Association
Advisor: Puerto Rico Conservation Trust
Puerto Rico Environmental Quality Board
Puerto Rico Natural History Society
Puerto Rico Department of Natural Resources

CURRICULUM VITAE

Frank H. Wadsworth

Location: Institute of Tropical Forestry
Southern Forest Experiment Station
USDA - Forest Service
P.O. Box 25000
Rio Piedras, Puerto Rico 00928-2500
(809) 766-5335

Education: BSF, Forest Production, Michigan, 1937
MF, Forest Succession in Central Alaska, Michigan, 1937
PhD, Forest Management in the Luquillo Mountains,
Puerto Rico, Michigan, 1950

Employment: Ponderosa pine silvicultural research. SW Forest
and Range Exp. Sta., Arizona, 1938-40 and 1941-42
Shelterbelt planting, Prairie States Forestry Project,
Nebraska, 1940
Timber management research, Tropical Forest Exp. Sta.,
Puerto Rico, 1942-56
Director, Institute of Tropical Forestry, Puerto Rico,
1958-78
Research forester, Institute of Tropical Forestry, Puerto
Rico, 1978 -

Experience: Director 15 three-month international tropical forestry
short courses, Puerto Rico, 1954-69
Teaching graduate level tropical silviculture, U. Andes,
Venezuela, 1967
Publication of 90 technical articles on forestry, 1939-87
Twenty-three international tropical forestry consultancies
1949-87

Participant:
UN World Forestry Congress, five sessions, 1960-85
UN Committee on Forestry Development in the Tropics,
three sessions, 1967-87
UN Latin American Forestry Commission, eight sessions,
1950-70
UN Latin North American Forestry Commission, five
sessions, 1967-78

Current affiliations: American Forestry Association, Washington, D.C.,
(Board of Directors), 1979 -
ISTF NEWS, International Society of Tropical Foresters,
Washington, D.C. (editor), 1979 -
NEW FORESTS, Netherlands (Editorial Board), 1980 -
Caribbean Conservation Association (Board of Directors),
Barbados, 1983 -
Eastern Caribbean Natural Area Management Program,
St. Croix, V.I., (Board of Directors) 1987 -
Natural History Society of Puerto Rico, (Advisor) 1987 -

- forests. pp. 279-288. In F. R. Golley (ed.). Tropical rain forest ecosystems: Structure and function, Chapter 17, Elsevier Scientific Publishing Co., Amsterdam, The Netherlands. pp. 279-288.
- Wadsworth, F. H. 1986. A focus for forest conservation in Jamaica. In D. A. Thompson, P. K. Bretting, and M. Humphreys, editors. Forest of Jamaica. p. 3-11. The Jamaican Society of Scientists and Technologists. Kingston, Jamaica.
- Wadsworth, F. H. 1987. A time for secondary forestry in tropical America. Pages 189-197 in J. C. Figueroa Colon, F. H. Wadsworth, and S. Branham, editors. Management of the forests of tropical America: prospects and technologies. Proceedings of a conference. September 22-27, 1986. San Juan, Puerto Rico. United States Department of Agriculture, Forest Service, Institute of Tropical Forestry, Southern Forest Experiment Station, Rio Piedras, Puerto Rico.
- Wadsworth, F. H. 1987. Applicability of Asian and African silviculture systems to naturally regenerated forests of the neotropics. In F. Meigen and J. F. Vincent, editors. Natural management of tropical moist forests: silvicultural and management prospects of sustained utilization. Pages 93-111. Yale University, School of Forestry and Environmental Studies, New Haven, Connecticut.
- Wadsworth, F. H. 1987. Composition of trees in insular forest ecosystems. Acta Cientifica 1(2-3):77-80.
- Wadsworth, F. H. 1987. Tree growth as a guide to the management of secondary tropical forests. In A. E. Lugo, J. J. Ewel, S. B. Hecht, P. G. Murphy, C. Padoch, M. C. Schimk, and D. Stone, editors. People and the Tropical Forest: pages 57-60. A Research Report from the United States Man and the Biosphere Program. United States Man and the Biosphere (MAB) Program, Tropical and Subtropical Forests Directorate, Washington, DC, USA.
- Wadsworth, F. H., R. R. Parresol, and J. C. F. Colon. 1989. Tree increment indicators in a subtropical wet forest. In Wan Razali Wan Mohd., H. T. Chan, and S. Appanah, editors. Proceedings of the Seminar on Growth and Yield in Tropical Mixed/Moist Forests, June 20-24, 1988, Kuala Lumpur, Malaysia. Pages 205-213. Forest Research Institute, Kuala Lumpur, Malaysia.

CURRICULUM VITAE

ARIEL E. LUGO

Born in Mayagüez, Puerto Rico; April 28, 1943. Married to Helen Nunci (1984). Daughter and son, thirty five and twenty eight. Home Address: 1528 Támesis, Urbanización El Paraíso, Río Piedras, Puerto Rico 00926. Phone: 787-764-0302.

EDUCATION Mayagüez Public Schools; Hostos High School, Mayagüez, 1959; B.S. (Biology) University of Puerto Rico, 1963; M.S. (Biology) University of Puerto Rico, 1965; Ph.D. (Ecology) Department of Botany, University of North Carolina at Chapel Hill, 1969.

CURRENT POSITION Director, International Institute of Tropical Forestry, USDA Forest Service, Jardín Botánico Sur, 1201 Calle Ceiba, Río Piedras, PR 00926-1119. Phone: 787-766-5555. Fax number: 787-766-6263.

Internet Government: alugo@fs.fed.us

Internet Personal: hanael@caribe.net

ADMINISTRATIVE AND POLICY-MAKING EXPERIENCE Assistant Secretary for Planning and Resource Analysis, Puerto Rico Department of Natural Resources (1973-1974). Assistant Secretary for Science and Technology, Puerto Rico Department of Natural Resources (1974-1975). Address: P.O. Box 5887, Puerta de Tierra, San Juan, PR 00906. Acting Director, Center for Wetlands, University of Florida at Gainesville (July 1977-January 1978). Staff Member, Council on Environmental Quality, Executive Office of the President (1978-1979). Address: 722 Jackson Place, N.W., Washington, D.C. 20006. Division Head, Center for Energy and Environment Research, University of Puerto Rico (1980-1988). Project Leader (1979-1992), Director (1986-1992), and Supervisory Research Ecologist (1979-1992), Institute of Tropical Forestry. Acting Director (1992-1994), International Institute of Tropical Forestry. Appointed to the Senior Executive Service in 1994. Acting Deputy Chief of International Forestry, USDA Forest Service, Washington, D.C., February-March, 1995.

RESEARCH EXPERIENCE Research has been conducted and published for the following ecosystems: subtropical wet forest at El Verde in Puerto Rico (1963-1966). Granite outcrops in Southeastern United States (1965-1969). Tropical wet forest at the Osa Peninsula in Costa Rica (1971). Mangrove forests of Florida (1971-1973 and 1977-1982), Puerto Rico, and the Caribbean (1973-present). Hardwood forest in Gainesville, Florida (1969-1973). Sand pine forest in Ocala, Florida (1971-1973). Río Dulce river in Guatemala (1972). Oklawaha river and floodplain wetlands in Florida (1972-1973). Farm pond in Gainesville, Florida (1970-1972). Fresh water prairie (typical Prairie) and associated lakes in Gainesville, Florida (1972-1975). Laboratory microcosms (1969-1975). Subtropical dry forest in Puerto Rico (1974-1977 and 1981-present). Sandhill forest in Gainesville, Florida (1976-1978). Palm wetlands in subtropical wet and subtropical rain forest life zones in Puerto Rico (1980-present). Current research also includes an assessment of the role of tropical forests in global processes; ecological studies of tropical tree plantations; comparisons of plantations and natural forests; relation between forest management and soil and water quality in Caribbean forests; response of tropical forests to disturbances; studies of tropical wetlands; and studies of the change of litter quality in time and space.

ORGANIZATIONS

Positions Held

Councilor (1985-1987) and President (1990) Association for Tropical Biology.
Chairman (1980-1989) Man and the Biosphere (MAB) Directorate I - Tropical Forest Ecosystems.
Chairman (1990) MAB Tropical Ecosystems Directorate.
President (1981) Science Teachers Association of Puerto Rico.
Chairman (1980-1998) Research Committee of the Latin America Forestry Commission of the Food and Agriculture Organization of UNESCO.
Member Executive Committee (1990-1993) International Society of Tropical Foresters.
Member Board of Governors (1989-1991) and Member of the Board (1992-1994) Society for Conservation Biology.
Founding Member (1988) and Member of the Board of Directors (1992-1999) Society for Ecological Restoration.
Member Board of Bearers (1990-1993) and Executive Committee (1994-1998) International Society for Tropical Ecology.
Member Board of Directors (1990-1995) Puerto Rico Conservation Foundation (Vice President 1992-1993, President 1994-1995).
Councilor of Caribbean Division of the American Association for the Advancement of Science (1991-1992).
Member Academic Council EPOMEX Program (Programa de Ecología, Pesquerías y Oceanografía del Golfo de México, Universidad Autónoma de Campeche, México) (1994-2000).
Member of Scientific Committee of The Conservation Trust of Puerto Rico. (1997-1998).
Member-at-Large of the Board of the Ecological Society of America (1998-2000).
Member of U.S. National Academies' Scientific Committee on Problems of the Environment (SCOPE) (2000-2003).
Member Executive Committee International Society for Tropical Ecology (2001-2004)
Member Board of Directors Tropical Forest Foundation (2002-2003)

Editorial Boards

Vegetatio (1981-1992).
Journal of the Litoral (1982-present). Natural Sciences Society in Santa Fe, Argentina.
Acta Científica (Editor) (1987-present). Journal of the Puerto Rico Science Teachers Association.
Journal of Sustainable Forestry (1991-present).
Restoration Ecology (Associate Editor) (1992-1999).
Forest Ecology and Management (1994-present).
Agrociencia (1994).
Journal of Vegetation Science, organ of the International Association for Vegetation Science (1994-1996).

Madera y Bosques. Published by Instituto de Ecología, México (1995-present).
Mitigation and Adaptation Strategies for Global Change (1995-present).
Conservation Ecology (1997-present).
Ecosystems (2002-present)
SER-Island Press Book Series (2003-present)

Memberships

Association for Tropical Biology.
Society of the Sigma Xi (1969-1995).
Ecological Society of America (life member).
Society of Limnology and Oceanography (1973-1991).
International Society for Tropical Ecology.
MAB Directorate 7-B Caribbean Islands (1978-1989).
IUCN Commission on Ecology (including working group on mangrove ecosystems
and working group on rain forest ecosystems) (1980-1986).
International Association for Ecology.
Florida Academy of Sciences (1970-1992).
National Wetlands Technical Council (1983-1993).
IUBS Decade of the Tropics (working groups on species diversity and soil fertility)
(1985-1988).
Honorary member Beta Beta Beta honor society, Zeta Zeta chapter, Inter-American
University, Río Piedras, P.R. (1986-present).
Puerto Rico Academy of Arts and Sciences (1991-present).
International Society of Tropical Foresters.
Society of Caribbean Ornithology.
Sociedad Ornitológica Puertorriqueña.

CONSULTING EXPERIENCE

International

UNESCO: Thailand (1975-1976), Colombia (1978), Malaysia (1983).
World Bank: Mexico (1978).
National Audubon Society: Bahamas (1977).
Organization of American States: Venezuela (1979, 1980).
UNESCO: MAB Program, General Scientific Advisory Panel in Paris (1985-1986).
Conservation Trust of Belize: Rio Bravo Reserve (1996).
Scientific Certification Council for Société Générale de Surveillance (1998-2000).

National

Save Our Bays Association (1970).
American Oil Co. (1972).
H.W. Lochner, Inc. (1972).
U.S. Forest Service (1972).
U.S. Department of Interior (1972, 1973, 1976, 1977).
U.S. Environmental Protection Agency (1974).

U.S. Justice Department (1974, 1978).
Southwest Florida Regional Planning Council (1976, 1977).
Florida Department of Natural Resources (1976).
Rockefeller Foundation (1976).
County of Lee, Florida (1977).
National Wildlife Federation (1978).
Collier County Nature Conservancy (1980).
Trustee Florida Defenders of the Environment (1980-1981).
Research Associate, Islands Resources Foundation, US Virgin Islands
(1980-present).
Scientific Advisor, CO₂ Program of the Institute of Energy Analysis, Oak Ridge,
Tennessee (1982-1984).
Executive Committee U.S. MAB Program (1981-1984).
National Research Council Committee on Ecological Problems Associated with
Development of the Humid Tropics (1980-1982).
Advisory committee, Yale Tropical Resources Institute (1985-1990).
Advisor to Rhode Island University coastal zone program for tropical countries
(1985-1988).
Board of Overseers of Harvard College, Committee to visit Department of
Organismic and Evolutionary Biology (1989-1994).
Review team for the Department of Forestry, School of Forest Resources and
Conservation, University of Florida (1989).
National Committee for US MAB Program (1990).
National Research Council Committee on Sustainable Agriculture and the
Environment in the Humid Tropics (1990-1993).
Science Advisory Panel for The Center for Microbial Ecology, Michigan State
University (1993-1998).
Organization for Tropical Studies Research Advisory Committee (1998-present).
National Science Foundation Committee of Visitors, Division of Environmental
Biology (1999).

State (Puerto Rico)

Department of Natural Resources (1975, 1976).
Environmental Quality Board (1976, 1977).
Senior Advisory Committee to the President of the University of Puerto Rico
(1982-1988), Chairman (1985-1988).
Appointed by the Governor of Puerto Rico to *the Consejo Consultivo del Programa
de Patrimonio Nacional* (1990-1992; 1994-1998).
Advisory Committee to President of University of Puerto Rico on the Minority Center
for Research Excellence (1990-2000).
San Juan Bay Estuary Ecological Assessment Sub-committee (1996-2000).
Advisory Council Member of the University of Puerto Rico's Sea Grant College Program
(1997-2000).
Review Panel Member of the Puerto Rico Experimental Program to Stimulate
Competitive Research (2001).
Member of Resident Commissioner's Environmental Advisory Council (2001-present)
Member of Governor of Puerto Rico's Environmental Advisory Board (2002-present)

TEACHING EXPERIENCE

University

- General zoology laboratory assistant, University of Puerto Rico (1962).
Cell physiology laboratory assistant, University of Puerto Rico (1963).
General botany laboratory assistant, University of North Carolina (1967).
Assistant Professor, Department of Botany, University of Florida (1969-1976).
Associate Professor, Department of Botany, University of Florida (07/1976-1979).
Taught courses on biological sciences, general ecology, ecology of Florida, tropical ecology, aquatic ecology, and radiation and plant growth.
Ad Honorem lecturer and professor, University of Puerto Rico (1974-1976, 1980-present). Taught courses on experimental ecology, the forests of Puerto Rico, mangrove ecology, plantation forestry, tropical forest restoration and rehabilitation, and advanced ecology.
Courtesy appointments at Department of Environmental Engineering Sciences, Center for Latin American Studies (1977), and Department of Botany, University of Florida, Gainesville, Florida (1980-1992).
Ad Honorem Associate Professor, Department of Public Health, School of Medicine, University of Puerto Rico (1985-1986).
Graduate faculty member, Department of Environmental, Population and Organismic Biology, University of Colorado, Boulder, Colorado (1990-1991).

Short Courses

- International and interdisciplinary course on man and the environment, Leiden University, The Netherlands (1972) and University of Florida (1973).
Four short courses for natural resources managers, USDA Forest Service (1971-1973).
Tropical ecology - Costa Rica (1971); Venezuelan Institute of Scientific Investigations in Caracas, Venezuela (1973); University of Puerto Rico (1976); Instituto Cultural Dominicano-Americano in Santo Domingo, Dominican Republic (1976); Instituto Guatemalteco Americano in Guatemala City, Guatemala (1979).
Water planning and management, Mediterranean Agronomic Institute, Zaragoza, Spain (1978, 1981-1983, 1986-1988).
Ecosystem modelling and management, University of La Plata, Argentina (under Fullbright-Hayes Fellowship) (1978).
Systems ecology, CIDIAT, Merida, Venezuela (1979, 1980).
Chautauqua-type courses on tropical forestry for high school and college teachers, University of Puerto Rico (1984-1987, 1990).
Research methodology for science teachers, University of Puerto Rico (1981-1988).
Mangrove ecology, Las Tuxtlas field station, Veracruz, Mexico (1990).
Post graduate course on the ecology and management of tropical forests at the National University of La Plata, Argentina (1994).

FEDERAL COURT APPEARANCES AS EXPERT WITNESS

1972 - Jacksonville Federal District Court in the Environmental Defense Fund Inc. vs. Corps of Engineers of the United States Army *et al.* Case No. 71-652-CIV-J dealing with the Cross Florida Barge Canal.

1974 - Washington D.C. Federal District Court in PFZ Properties vs. EPA. a case dealing with development in a mangrove wetland.

1977 - United States District Court for the District of Puerto Rico in Commonwealth of Puerto Rico and Environmental Quality Board vs. The SS Zoe Colocotroni, her engines, appurtenances, etc., *et al.* Case No. 252-73 dealing with an oil spill on mangroves.

1978 - Miami Court of Claims in James J. Jentgen vs. United States. Case No. 415-76 dealing with section 404 of the Water Pollution Control Act.

1981 - United States District Court for the District of Puerto Rico in USI Properties Corp. vs. the U.S. Environmental Protection Agency and U.S. Department of the Army. Case No. 80-2329 dealing with development of a wetland.

1982 - United States Claims Court at Key West in Melvin J. Laney vs. the United States. Case No. 130-801 dealing with a taking of a mangrove wetland.

1989 - United States District Court for the District of Puerto Rico in United States of America vs. Tommy Muñiz *et al.* Case No. 87-0759 (JP) dealing with bulkhead construction in mangrove wetlands.

FEDERAL INTERAGENCY COMMITTEES

Endangered Species Scientific Authority (1978-1979).

Interagency Arctic Research Coordinating Committee (1978-1979).

Interagency Tropical Deforestation Task Force (1978-1979).

Federal Committee on Ecological Reserves (Co-Chairman, 1977-1979).

Tropical Diversity Interagency Committee (1985).

USDA Hispanic Advisory Council (Appointed by Secretary Glickman, July 24, 1997-2000).

US National Committee for SCOPE (2000)

GRADUATE STUDENT RESEARCH

Patricio Jerez, Masters thesis, 1972. Energy flow estimates in cotton production in the tropics (Nicaragua).

Mark Brinson. Doctoral dissertation, 1973. The organic matter budget and energy flow of a tropical lowland aquatic ecosystem (earned "excellence for graduate research" award).

Patricia Veno, Masters thesis, 1974. A successional study of north-central Florida plant communities.

Ken Dugger, Masters thesis, 1975. A management model for Paynes Prairie

Leslie Brinson, Masters thesis, 1977. A comparison of seasonal plankton abundance and primary productivity in five tropical freshwater deltaic embayments.

Caroline S. Rogers, Doctoral dissertation, 1977. The response of a coral reef to sedimentation.

Carol Patterson Zucca, Masters thesis, 1978. The effects of road construction on a mangrove ecosystem.

Robert Twilley, Doctoral dissertation, 1982. Litter dynamics and organic carbon exchange in black mangrove (*Avicennia germinans*) basin forests in a southwest Florida estuary.

Migdalia Alvarez, Masters thesis, 1982. A comparison of the structure and ecology of *Pterocarpus officinalis* (JACQ.) forested wetlands in Puerto Rico.

Carlos David Rodríguez Pedraza, Masters thesis, 1993. Efectos del huracán Hugo sobre plantaciones y bosques secundarios pareados en el Bosque Experimental de Luquillo, Puerto Rico.

Sandra Molina Colón, Doctoral dissertation, 1998. Long-term recovery of a Caribbean dry forest after abandonment of different land uses in Guánica, Puerto Rico.

Migdalia Álvarez Ruiz, Doctoral dissertation, 2002. Effects of anthropogenic disturbance on stand structure and decomposition, and genetic diversity of *Dacryodes excelsa* Vahl (tabonunco) forest in Puerto Rico.

POST DOCTORAL ASSOCIATES

Sandra Brown, 1978-1981. Global Carbon Cycle and Forested Wetlands.

Jorge L. Frangi, 1981-1982. Palm Forest Wetlands.

Elvira Cuevas, 1987-1988. Plantation Ecology.

Juan Torres, 1988-1990. Wood Decomposition.

Whendee Silver, 1991-1993. Global Climate Change and Forested Wetlands.

AWARDS

National Institute of Health Training Fellowship, 1965-1968.

University of Florida Graduate School research grant, 1969 (\$6,000)

U.S. Forest Service contract to write a book on the ecology of the Ocala National Forest, 1970 (\$15,000) with S.C. Snedaker.

University of Florida, Division of Sponsored Research grant to study microcosms, 1970 (\$10,000).

U.S. Department of Interior contract to model south Florida ecosystems, 1971 (\$5,000) with S.C. Snedaker, H.T. Odum, and S. Bayley.

Bureau of Sport Fisheries and Wildlife (USDI) contract to study mangrove forests, 1971-1973 (\$67,200) with S.C. Snedaker.

University of Florida, Division of Biological Sciences grant to study estuaries, 1971-1972 (\$1,900).

American Oil Company contract to model the impact of oil drilling on the Ocala National Forest, 1972 (\$2,500).

Florida Department of Natural Resources grant to study aquatic plants, 1972-1975 (\$87,000) with T.W. Lucansky and D.S. Anthony.

H.W. Lochner, Inc. grant to assess environmental impact of Interstate Highway 75 in south Florida, 1972 (\$2,000).

University of Florida, Graduate School grant to buy an analog computer, 1972 (\$5,000) with J. Ewel.

U.S. Department of Interior and State of Florida contract to model south Florida ecosystems, 1972-1974 (\$120,000) with H.T. Odum, S.C. Snedaker, S. Bayley, and L. Peterson.

U.S. Department of Interior, Bureau of Sport Fisheries and Wildlife contract to study mangrove forests and a coastal dry forest in Puerto Rico, 1973-1976 (\$137,350).

Excellence for graduate research award, Institute of Food and Agricultural Sciences, University of Florida, 1973 with Mark Brinson.

National Science Foundation international travel grant to Zaire, Africa, 1974 (\$1,000).

U.S. Environmental Protection Agency grant to study black mangrove forests in south Florida, 1977-1979 (\$78,000).

Conservation Foundation grant to write a review paper on the primary productivity of freshwater wetlands, 1977 (\$1,650) with M. Brinson and S. Brown.

Fulbright-Hayes Fellowship to teach an ecosystem modelling course at the University of La Plata in Argentina, 1978.

U.S. Department of Energy grant to study the role of tropical forest ecosystems in the CO₂ balance of the world, 1978-1982 (\$400,000) with S. Brown and C.A.S. Hall.

U.S. Department of Energy grant to study the role of tropical forest ecosystems in the CO₂ balance of the world, 1983-1987 (\$405,748) with S. Brown.

U.S. Man and the Biosphere consortium grant to study mineral cycling of tropical tree plantations and natural forests in a Biosphere Reserve, 1980-1983 (\$50,000) with Leon H. Liegel.

U.S. Man and the Biosphere consortium grant to conduct a workshop for Caribbean tropical foresters, 1981, 1983, and 1987 (\$29,400).

U.S. Man and the Biosphere consortium grant to administer the U.S. MAB Tropical Forest Directorate, 1980-1984 (\$14,350).

National Science Foundation grant to study the Guánica State Forest, 1981-1983 (\$111,875) with Peter Murphy and Susan Kephart.

U.S. AID grant to lead a forestry research program in Caribbean islands, 1982-1983 (\$240,000).

FAO grant to conduct a workshop for Latin American Foresters, 1983 (\$7,000).

U.S. Department of Energy grant to publish a life zone map of Brazil, 1983 (\$5,000).

U.S. National Oceanographic Administration grant to study carbon dynamics in arid mangrove ecosystems, 1984-1985 (\$10,000) with Gilberto Cintrón and Eddie Laboy.

U.S. Man and the Biosphere Program grant to study the relationship between land use and water quality in Caribbean islands, 1984-1985 (\$27,675) with Ferdinand Quiñones.

U.S. Man and the Biosphere Program grant to organize and publish proceedings of a symposium on Tropical Forestry, 1985-1986 (\$28,000).

National Technical Wetlands Council. Contract to conduct a workshop on Caribbean island wetlands, 1986 (\$7,300).

National Science Foundation grant to develop a long-term ecological research site proposal for the Luquillo Experimental Forest, 1988 (\$150,000) with R. Waide.

U.S. Department of Energy grant on "exchanges of carbon between the atmosphere and terrestrial ecosystems as a result of land use changes, 1988-1990 (\$268,250) with S. Brown.

Distinguished Service Award, U.S. Department of Agriculture, 1988.

National Science Foundation Long-Term Ecological Research grant for the Luquillo Experimental Forest I, 1988-1994 (\$2,250,000) with R. Waide.

World Wildlife Fund grant to assess the effects of Hurricane Gilbert on the forests of Jamaica, 1989 (\$6,150) with G. Bauer and A. Gillespie.

Distinguished Scientist Award, USDA Forest Service, 1990.

Workforce Diversity Award, Southern Forest Experimental Station, 1990.

U.S. Man and the Biosphere Program grant to administer the tropical ecosystems directorate, 1990-1991 (\$15,000).

U.S. Department of Energy grant to study terrestrial sources and sinks in the global carbon balance, 1990-1991 (\$99,000) with S. Brown and L. Iverson.

Distinguished Scientist Award for 1992, InterAmerican University, San Juan, Puerto Rico.

National Science Foundation Long-Term intersite decomposition experimental team (LIDET) with M. Harmon and 32 others.

National Science foundation Long-Term Ecological Research grant for the Luquillo Experimental Forest II, 1994-2000 (\$4,080,000) with R. Waide, F.N. Scatena, and J.K. Zimmerman.

Premio Chelonia 1995 (education), Puerto Rico Herpetological Society, San Juan, PR.

National Science Foundation Long-Term Ecological Research grant for the Luquillo Experimental Forest III, March 18, 1999 (\$235,122) with J. Zimmerman and F. Scatena.

National Aeronautics and Space Administration Institutional Research Award for Land Management in The Tropics and its Effects on the Global Environment, 1999, (\$112,000) with E. Helmer.

Original Member, Highly Cited Researchers Database ISI Thomson Scientific, 2002.

National Science Foundation Long-Term Ecological Research grant for the Luquillo Experimental Forest III, December 1, 2002 (\$700,000) with N. Brokaw, J. Zimmerman, W. Silver, and W. McDowell.

PUBLICATIONS (abstracts not included)

1965

1. Lugo, A.E. Photosynthetic studies on rain forest seedlings, *Cecropia peltata*, *Anthocephalus cadamba*, *Dacryodes excelsa*, and *Sloanea berteriana*. M.S. thesis. University of Puerto Rico, Río Piedras, 37 p., 11 tables and 25 figures.

1969

2. Lugo, A.E. Water, carbon, and energy budgets for a granite outcrop ecosystem. Ph.D. dissertation, Botany Department, University of North Carolina, Chapel Hill. 232 p.

1970

3. Lugo, A.E. Energy flow in some tropical ecosystems. Soil and Crop Science Society Proceedings 29:245-264.

4. Lugo, A.E. The ecological role of fertilizers in relation to forest productivity and dello subsidy by man. Proceedings Florida Section Society American Foresters 21-33 p.

5. Lugo, A.E. Ecosystems and man. Florida Naturalist 43:89-92.