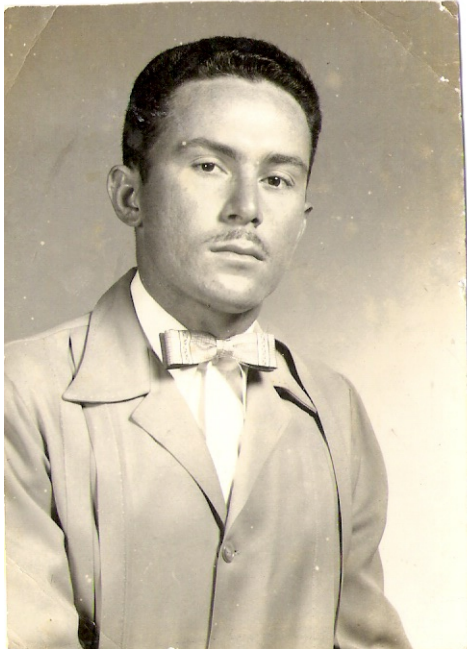


Association of Marine Laboratories of the Caribbean  
Distinguished Service Award  
Presented to Dr. Juan G. González Lagoa

*Contributed by  
Ernest H. Williams, Jr. and Lucy Bunkley-Williams*



The first Secretary-Treasurer of our Association, Dr. Juan G. González Lagoa, is a remarkable administrator having been head of 23 major organizations for the University of Puerto Rico at Mayagüez or the Environmental Protection Agency for the last 50 years (see list below). He actually missed the first meeting of the Association at his University because he was finishing up a masters degree in Texas at the time. However, soon afterwards he became the Secretary-Treasurer (1957-1969) taking the AIMLC through the difficult formative years. He made up for his initial lapses by continuing to be an AMLC Individual Member for 50 years becoming our only perfect aficionado. He also filled in for Lucy and me as AMLC Secretary-Treasurer again while we were in Japan (1985-1986). Beside the normal Secretary-Treasurer

duties (i.e., running the Association), he also helped coordinate cooperative research projects and cruises among institutional members supported by the Office of Naval Research. He brought another laboratory that he directed, the Center for Energy and Environmental Research, into Association Institutional Membership in 1978 and they remained a member until they dissolved in 1991. Not on his watch, as he was off directing bigger-and-better things by then.

Dr. Juan G. Gonzalez Lagoa was born 19 January 1933 in Mayagüez, Puerto Rico. He received a BS in Zoology at the University of Puerto Rico at Mayagüez (UPRM) in 1955, an MS in Biological Oceanography at Texas A & M University in 1957, and a PhD at the University of Rhode Island in 1973.

As soon as he returned in 1957, he was hired by the Institute of Marine Biology that later became the Department of Marine Science, UPRM, as an Assistant Professor and Research Associate until 1967 when he left to pursue a PhD Degree. He was also with the Environmental Protection Agency, Environmental Research Laboratory in Narragansett, RI, as a Research Aquatic Biologist 1969-1976; Senior Scientist, Center for Energy and Environmental Research, Mayagüez, Puerto Rico 1979-1981; Associate Professor, Department of Marine Science, UPRM 1981-1987; Professor 1987-2000. He has graduated 10 PhD and 13 Master's students.

Besides running the Association, he has headed or directed a long list of organizations: Minority Research Center of Excellent (NSF), University of Puerto Rico: Co-Director January 1989 to May 1993; Director May 1993 to 1995; Resource Center for

Science and Engineering, University Of Puerto Rico at Mayagüez, Associate Director August 1992 to present; Puerto Rico Space Grant Program, Director May 1992 to 1996; Tropical Atmospheric Sciences Center-NASA /EPSCoR-Director 1994; Puerto Rico NASA Space Grant Program: Mayagüez Affiliate, 1996 to pre-sent; Local Academic Coordinator PRLS-AMP Bridge to the Doctorate Program; Academic Affairs, University of Puerto Rico at Mayagüez, Associate Dean 1991-1992; Faculty of Arts and Sciences, University of Puerto Rico at Mayagüez, Director, Office of Research Coordination 1983-1988; Associate Dean of Research and External Funding 1988-1991; Sea Grant Program, University of Puerto Rico at Mayaguez, Coordinator of Education 1983-1988; Department of Marine Sciences, Assistant Director 1987, UPRM; Center for Energy and Environmental Research, Mayagüez, Puerto Rico, Head of Marine Ecology Division 1976-1979; University of Puerto Rico at Ramey Air Force Base, Aguadilla, PR, Extension Division Instructor in Biological Sciences 1965-1966; Puerto Rico Department of Education, Biological Science Curriculum System Program, Consultant 1964-1965; and as Associate Editor he helped found the Caribbean Journal of Science in 1961.



He has also conducted 32 major grants and research projects funded by more than \$33 million: Minority Research Center of Excellence (NSF); University of Puerto Rico: 1993-1998, Project Director (\$5 million); Puerto Rico/NASA Capability Enhancement Program for Competitive Research and Human Resources Development in Aerospace Related Sciences 1992, Project Director (\$450,000); Tropical Atmospheric Science Center NASA EPSCoR (\$5 million); Howard Hughes Medical Institute; University of Puerto Rico at Mayagüez, 1991-1994, Project Director (\$500,000) and 1994-1998 Project Director (\$500,000); Alliance for Minority Participation; University of Puerto Rico; 1991-1995 Co-Project Director (\$5 million); Research Improvement for Minority Institutions (NSF); University of Puerto Rico at Mayagüez 1990-1993, Co-Project Director (\$500,000); NASA Educators Resource Center, A physical facility 1994; NASA Living with a Star Program 2000-Present, (\$250,000); AVON UV radiation from the sun and its potential damaging effects, 2002, (\$5,000); Enhancement of primary production by Antarctic waters, Funded by Sea Grant, University of Puerto Rico; A study of the succession of congeneric species of copepods in the shallow waters of the southwestern coast of Puerto Rico, funded by Sea Grant, University of Puerto Rico; Preparation of an atlas on the oceanic copepoda around Puerto Rico, Funded by the University of Puerto Rico; Studies of the causes of excessive marine algae production in Boca Vieja Bay, Puerto Rico, and their effects on a steam generating plant; An evaluation of the effects of rum slops (mostos) on the marine environment in Puerto Rico and St. Croix, Funded by the Environmental Protection Agency by mandate of Congress 1977; Effects of oil on community structure, EPA. (1975-1976); Effects of oil on fish eggs and fish larvae, EPA (1975-1976); Use of filtration rates in marine mollusks to assess the chronic effect of various oils and their components, EPA (1975-1976); Program of study of the acute and chronic effects of oils on marine invertebrates and vertebrates in North American coastal





waters. EPA (1975-1976); Study of the temperature limits of marine invertebrates in Puerto Rican coastal waters, funded by the Water Resource Research Institute; Effects of cyclic temperatures on the survival of *Mercenaria*, the quahog, and the blue mussel *Mytilus edulis*, EPA (1972-1973); survey of the plankton populations of Biscayne Bay, Florida, EPA (1971); Survey of the plankton populations of Trinity Bay, Texas EPA (1971); Study of Puerto Mosquito Bay (a bioluminescent bay), Funded and requested by the Planning Board of the Commonwealth of Puerto Rico (1966); Survey of the Tallaboa /Guayanilla Bays, Funded by Texaco (1966-1967); Study of primary productivity in the oceanic and neritic waters off the west coast of Puerto Rico, United States Office of Naval Research (1964-1965); Survey of the Punta Cabullon Area, funded by DuPont (1961); Survey of the Tallaboa/Guaniquilla Bays, Funded by DuPont (1961); Study of the physics, biology chemistry, geology and meteorology of the Gulf of Mexico through six oceanographic cruises aboard the R/V A. A. Jakkula (1955-1957).

He also spent a great deal of his time teaching and influencing many tens of thousands of undergraduate students in programs offering lectures and workshops on mangrove systems, coral reefs, bioluminescent bays, xerophytic environments, and rainforest vs xerophytic forest; with TV networks (Discovery Channel-Germany, ABC-US, Galileo-Germany, Geo-ambiente-WIPR-Puerto Rico) in marine educational ecological videos; lectures and workshops on the dynamics of the sun, our planetary system, exploration of Mars, night watches with 11 inch telescope for school teachers and their k-12 students; offers lectures and workshops on the subject of pseudoscience, science, and education; supervising students for science fair projects; and has taken many thousands of students on marine field trips. All-in-all, he has enriched the educational experiences of millions of students. We are aware of no other Super-Administrator so generous with their time for the young.





We are honored to be considered friends of such an outstanding academician and statesman.



Juan Gonzales receiving the AMLC Distinguished Service Award

## Dr. Gonzales's Comments on receiving the Award

Good evening ladies and gentlemen. It is indeed, a great honor to have the Association of Marine Laboratories of the Caribbean bestow on me this recognition for my participation in the initial efforts, led by Dr. Juan A. Rivero, for the establishment of this important scientific association which has served well the Caribbean Region for the past 50 years. Before proceeding any further, I must thank Dr. Rick Nemeth, Director of the Center for Environmental and Marine Studies of the University of the Virgin Islands for hosting the 50<sup>th</sup> anniversary and the 33<sup>rd</sup> meeting of the AMLC at the UVI. Congratulations to you and your staff for such a well organized scientific gathering. I was greatly impressed with the high quality of the presentations and the poster session. Thanks also, to Drs. Ernest (Bert) Williams and Lucy Bunkley-Williams who were instrumental in having us participate of this special celebration.

A year after the association was established, I joined Dr. Juan Rivero and Dr. Robert E. Coker, who was at the time scientific and administrative advisor of the Institute of Marine Biology (forerunner of the Department of Marine Sciences), for the first symposium held at the Bermuda Biological Station in St. Georges Bermuda. I presented my first paper (Margalef and González, 1958), a joint collaboration with Dr. Ramon Margalef from Barcelona, Spain. It was our first attempt to show the mechanism by which phytoplankton, particularly dinoflagellates, concentrate in bioluminescent bays: A densification process characteristic of many coastal environments. Our experimental design was simple and somewhat rustic, however, a few months ago I found similar

results using a more sophisticated high technological approach. Needless to say, that first meeting was like a preview to a very enriching academic life.

I have never stopped; my commitment now is to continue fostering everything that pertains to marine education. Thus, I envision to have future generations well aware of the complexity of marine ecosystems and how to protect them from the effects of ignorance.

Today, half a century later, I am overwhelmed with joy for two main reasons: I have been able to reencounter the roots that brought forth this great association and I have seen the fruition of that legacy permeating in all directions in our Caribbean Region. The excellent display of serious research, communication, and deep love for what you do are commendable. Congratulations again and I will see you again at the next meeting.

## **Publications**

- Bowman, T. E. and J. G. González. 1961. Four new species of *Pseudocyclops* (Copepoda: Calanoida) from Puerto Rico. *Proceedings of the U. S. National Museum* 113: 37-59.
- Coker, R. E. and J. G. González. 1960. Limnetic copepod populations of Bahía Fosforescente, Puerto Rico and adjacent waters. *Journal of the Elisha Mitchell Scientific Society* 76: 8-28.
- Enverich, D. and J. G. González. 1977. Critical thermal maxima of two species of estuarine fish. *Marine Biology* 41: 141-145.
- Glynn, P. W., L. R. Almodovar and J. G. González. 1964. Effects of hurricane Edith on marine life in La Parguera, Puerto Rico. *Caribbean Journal of Science* 4: 335-345.
- González, J. G. 1958. The distribution of copepods in the Mississippi Delta Region. 132 pp. *In: A study of some factors involved in the disposal of radioactive waste at sea. Part III.* Texas A & M Research Foundation.
- González, J. G. 1960. Ecology of the microscopic *Thalassia* community. *Proceedings of the Association of Island Marine Laboratories of the Caribbean* 3: 10.
- González, J. G. 1967. Primary productivity of the neritic and offshore waters of western Puerto Rico. U.S. Office of Naval Research, NONR-4318: 13 pp.
- Gonzalez, J.G. 1972. Seasonal variation in the responses of estuarine populations to heated water in the vicinity of a steam generating plant. PhD Thesis, University of Rhode Island, Kingston, Rhode Island. 142 pp.
- González, J. G. 1974. Critical thermal maxima and upper lethal temperatures for the calanoid copepods *Acartia tonsa* Dana and *Acartia clausi* Giesbrecht. *Marine Biology* 27: 219-223.
- González, J. G. 1975. Report of Project A-046-PR. Temperature limits of marine invertebrates of Puerto Rican coastal waters. Water Resources and Research Institute, University of Puerto Rico.
- González, J. G. 1979. Comprehensive analysis of research undertaken in Guayanilla Bay: An integrated view. Pages 1990-1994 *In: J. M. López (Ed.) Proceeding of the Symposium on Energy, Industry and the Marine Environment in Guayanilla Bay.*

- González, J. G. 1980. Responses of coastal and estuarine animals to high temperatures: A possible impact from heated industrial effluents. Water Resources Research Institute, Mayagüez, Puerto Rico, 46 pp.
- Gonzalez, J. G. 1980. Responses of coastal and estuarine animals from Puerto Rico to high temperatures; possible impact from heated industrial effluents. Water Resources and Research Institute, University of Puerto Rico. (process) U.S. Department of Interior, Office of Water Research and Technology, Washington, DC, 26 pp.
- González, J. G. 1982. Proposed hypothesis on the fish kill that took place in the Caribbean Sea during the late summer of 1980. Pages 28-32 *In*: D. K. Atwood (Ed.) Unusual mass fish mortalities in the Caribbean and Gulf of Mexico. Atlantic Oceanographic and Meteorological Laboratories, NOAA, Miami, Florida, USA, 46 pp.
- González, J. G. 1984. National report for Puerto Rico to the western Atlantic Turtle Symposium. Pages 349-363 *In*: P. Bacon, F. Bacon, K Bjorndal, H. Hirth, L. Ogren and M. Weber (Eds.) Proceedings of the Western Atlantic Turtle Symposium Volume 3, Appendix 7.
- González, J. G. and T. E. Bowman. 1965. Copepods from Bahía Fosforecente, Puerto Rico and adjacent waters. Proceedings of the U.S. National Museum 117: 241-304.
- González, J. G., D. Everich, J. Highland, B. Melzian and P. P. Yevich. 1979. Effects of No. 2 heating oil on filtration rate of blue mussel, *Mytilus edulis*. Pages 112-121 *In*: F. Sakin (Ed.) Proceedings of the Symposium on Advances in Marine Environmental EPA-600-1979-035.
- González, J. G., R. Highland and R. Johnson. 1975. A drift bottle to study zooplankton in industrial cooling water. Caribbean Journal of Science 14: 83-87.
- González, J. G. and P. P. Yevich. 1976. Responses of an estuarine population of blue mussel *Mytilus edulis* to heated water from a steam generating plant. Marine Biology 34: 1-13.
- González, J. G. and P. P. Yevich. 1977. Effects of heat on estuarine communities. Pages 115-127 *In*: Volume 3, Biological balance and thermal modifications, Proceedings of the World Congress vers un plan d'action pour l'humanité sponsored by the Institut de la Vie in Paris. Pergamon Press, New York.
- González, J. G., P. P. Yevich, J. Gentile and N. Lackie. 1974. Problems associated with the culture of marine copepods. Pages 199-207 *In*: W. L. Smith and M. H. Chanley (Eds.) Culture of Marine Invertebrate Animals, Plenum Press, New York.
- López, J. M., P. M. Yoshioka, J. G. González, J. E. Capella, J. A. Fornshell and J. A. Ramírez-Barbot. 1981. The structure of the ocean off Punta Tuna, Puerto Rico in relation to OTEC. Pages 563-573 *In*: Proceedings of the Eighth Ocean Energy Conference, U.S. Department of Energy, Washington, DC.
- Margalef, R. and J. G. González. 1958. Densification of plankton in the vicinity of shallow coasts subjected to intense evaporation. Proceedings of the Association of Island Marine Laboratories of the Caribbean 2: 14-15.
- Morell-González, V., J. G. González, and H. Santos Mercado. 1996. Introducción a las

- Ciencias Terrestres. A manual for intermediate school teachers (in Spanish), University of Puerto Rico, Mayagüez, 129 pp.
- Navarro, A. M., M. Maldonado, J. G. González-Lagoa, R. López-Mejía, J. López-Garriga and J. L. Colón. 1996. Control of carbon monoxide binding status and dynamics in hemoglobin I of *Lucina pectinata* by nearby aromatic residues. *Inorganica Chimica Acta* 243: 161–166.
- Randall, J. F. and J. G. González. 1963. El Instituto de Biología Marina. *Revista de Agricultura de Puerto Rico* 50: 81-89.
- Rios-Jara, E. and J. G. González. 2000. Effects of lunar periodicity on the emergence behavior of the demersal copepod *Pseudodiaptomus cokeri* In Phosphorescent Bay, Puerto Rico. *Bulletin of Marine Science* 67: 887-901.
- Sanjuan, A. E. and J. G. Gonzalez. 2000. Distribution of nutrients in the Phosphorescent Bay at La Parguera, on the southwest coast of Puerto Rico. *Proceedings of the Gulf and Caribbean Fisheries Institute* 51: 451-456.
- Zillioux, E. J. and J. G. González. 1972. Egg dormancy in a neritic calanoid copepod and its implications for overwintering in boreal waters. Pages 217-230 *In*: B. Battaglia (Ed.) *Fifth European Marine Biology Symposium*. Piccin Editore; Padova, Italy.
- Zimmerman, R. J., P. M. Yoshioka, V. P. Vicente, J. G. Gonzalez and J. M. Lopez. 1980. Eutrophic production of benthic algae and power plant cooling-water intake clogging in Boca Vieja Bay, Puerto Rico. Center for Energy and Environmental Research, University of Puerto Rico, Mayagüez, Technical Report, 113 pp.