ASSOCIATION OF RICE ALUMNI
DISTINGUISHED ALUMNI AWARD NOMINATION FORM

Nominee Sammy M. Ray Phone 409 740-4526 Fax 409 740-4894

Address Texas A&M University at Galveston, P.O. Box 1675

City/State/Zip Galveston, TX 77553 Rice Class Year(s) 1952 1954

Degrees/Majors/Years/Institutions B.S. Zoology 1942 LSU; M.S. & Ph.D. Biology '52 & '54 Rice

Occupation/Professional Field International leader in oyster research/administrator/teacher/advisor

Current Title/Position Professor Emeritus Marine Biology; Associate Director Continuing Education

The Distinguished Alumni Award is designed to recognize Rice alumni who have advanced the interest and standards of excellence of Rice University through distinctive professional or volunteer careers. The following criteria will be considered:

a) advancement of the value of one's profession; exceptional expertise and dedication
b) significant professional innovations or research findings
c) significant voluntary contributions of energy, time, creativity, and skills for the advancement of the community welfare, the arts, education, social or government service

Please attach a curriculum vita or other biographical information for the above nominee, describing his or her professional achievements, honors and awards, publications/inventions/innovations, and professional/civic activities, boards or affiliations. In addition to the curriculum vita, please provide a short letter of recommendation describing the merits of the nominee. Consider the following question in support of the above criteria: **What qualities or achievements make this person a truly outstanding leader in his or her profession, and a role model for current Rice students?**

Please note that incomplete nomination forms cannot be considered.

Nominated by R. Bowen Loftin Phone 979 845-2217 Fax 979 845-5027

Address Office of the President, Texas A&M University, 1246 TAMU

City/State/Zip College Station, TX 77843-1246

Please list two other people (i.e., colleague, classmate) whom you have asked to write a letter of support to further validate your nomination.

Name William Seitz Relationship colleague

Address TAMUG, P.O. Box 1675, Galveston, TX 77553 Phone 409 740-4409

Name Roger J. Zimmerman Relationship colleague

Address National Marine Fisheries, 4700 Avenue U, Galveston TX 77551 Phone 409 766-3500

Please return nomination material to:

Lauren Linn
Assistant Director
Office of Alumni Affairs – MS 520
Rice University
P.O. Box 1892
Houston TX 77251-1892

or fax to: 713-348-5210

CURRICULUM VITAE

SAMMY M. RAY

Birth:	Mulberry, Kansas, February 25, 1919
Married:	Yes and four children

MILITARY SERVICE

U.S. Navy:	1942 - 1945 - Pharmacist's Mate 1/C

EDUCATION

High School	Rosedale, Mississippi - 1938
A.A.	Mississippi Delta Junior College, Moorhead, MS - 1940
B.S. - Zoology	Louisiana State University - 1942
M.A. - Biology	Rice University - 1952
Ph.D. - Biology	Rice University - 1954

ACADEMIC AND OTHER EXPERIENCE

2000 - present	Professor Emeritus and Associate Director of Continuing Education
1993 - 2000	Professor Emeritus and Director of Community and Youth Programs
1990 - 1993	Professor Emeritus and Director of Sea Camp
1987 - 1990	Coordinator of Special and Graduate Programs; Professor of Marine Biology, Biology and Wildlife and Fisheries Services
1987 (Jan - July)	Interim President, Texas A&M University at Galveston; Coordinator of Graduate Programs; Professor of Marine Biology and Wildlife Fisheries Services
1984 - 1986	Dean, Moody College of Marine Technology
1982 - 1984	Acting Dean, Moody College of Marine Technology
1978 - 1981	Moody College, TAMU System - Director, School of Marine Technology and Professor, Biology, Oceanography, and Wildlife and Fisheries Sciences
1972 - 1977	Texas A&M University - Head Department of Marine Sciences and Professor, Biology, Oceanography, and Wildlife Fisheries Services
1969 - 1972	Texas A&M University - Director of Marine Laboratory, Galveston, and Professor, Oceanography, and Wildlife and Fisheries Sciences
1963 - 1969	Texas A&M University - Associate Professor, Oceanography, and Meteorology, Director of Marine Laboratory

1959 - 1963	Texas A&M University - Assistant Professor, Oceanography and Meteorology
1957 - 1959	Texas A&M Research Foundation Laboratory, Grand Isle, LA - Chief Biologist and Assistant Director
1954 - 1957	U.S. Fish and Wildlife Service, Fishery Research Biologist - Galveston, TX

CONSULTANT

Feb 1984 - May 1984	F.A.O. of United Nations - Oyster Biology and Marine Toxins of Bivalve Molluscs, Central Marine Fisheries Research Institute, Cochin and Tuticorin, India
1969 - 1981	National Aeronautics and Space Administration
1967 - 1969	Wildlife Resources Board, State of South Carolina

COMMITTEES

University	TAMUG Continuing Education Advisory Committee
Other	Member of Scientific Board of Advisors for Research Department, and Member of Editorial Board of the Salt Water Fisheries Division of the Florida Board of Conservation
	Member of Editorial Board of "Marine Resources Bulletin" published by the Alabama Department of Conservation
	Moody Foundation Scholarship Selection Committee (1968 - 1992)
	Galveston Marine Affairs Council (1976 - 1978)
	Member of Scientific Statistical Committee Gulf of Mexico Fishery Management Council (1977 - 1991)
	Faculty Appointment as Ecologist for National Marine Fisheries Service, Southeast Fisheries Center, Galveston Laboratory, Galveston, Texas (1980 - 1982)
	Deputy Director - Texas District of American Institute of Fishery Research Biologists (1980 - 1982)
	Acting District Director - Texas District of American Institute of Fishery Research Biologists (1990 - 1995)
	Chairman, Membership Review Committee American Institute of Fishery Research Biologists (1981 - 1997)

Member of "Estuarine Research" delegation to Peoples Republic of China, organized by People to People International. (Mar 21 - Apr 11, 1983)

Vice-Chairman of the Joint Interim Committee of the Texas Shrimp and Oyster Industry (1985 - 1987)

Member, Institutional Biosafety Committee, University of Texas Medical Branch (1986 - 1996)

Member, Board of Trustees of a Galveston Bay Foundation (1988 - present)

Chairman, Scientific and Technical Advisory Committee, Galveston Bay National Estuary Programs (1989 - 1991)

ACADEMIC HONORS

Faculty Distinguished Achievement Award in Research, TAMUG - 1974
Piper Professor of 1981
Distinguished Alumnus Award, Mississippi Delta Junior College - 1987
William Paul Ricker Award for Distinguished Faculty- Staff Achievement, TAMUG - 1989
Texas Academy of Science's Distinguished Texas Scientist for 1989
Texas Science Hall of Fame - 2002
Honorary Doctorate of Science, Doane College - 2006
Harte Heroes Legends of the Gulf Award, TAMUCC - 2012

PROFESSIONAL ORGANIZATIONS

Texas Academy of Science (Fellow)
Phi Kappa Phi, Louisiana State University, Texas A&M University
Physiological Society of America
Sigma Xi
National Shellfisheries Association
American Society of Fisheries Research Biologists (Fellow)
Marine Biological Association (United Kingdom)
Society for Invertebrates Pathology
Gulf Coast Estuarine Society

RESEARCH INTERESTS

Marine Biology
Oyster Biology
Oyster Aquaculture and Hatcheries
Invertebrate Pathology
Environmental Impact Assessment
Coastal Zone Management
Oyster Diseases
Harmful Algae
Shellfish Sanitation

PAPERS DELIEVED AT PROFESSIONAL MEETINGS AND PUBLICATIONS

Over the past fifty years, I have delivered many papers at professional meetings on different biological studies of oysters (diseases) such as (the susceptibility to and) the effect of different parasites and bacteria, and phytoplankton studies dealing with "red tides" marine toxins and the effects of petroleum products on marine organisms, especially oysters. I have served as sole author or co-author of numerous papers published in various scientific journals.

PUBLICATIONS

1948 An automatic proportioning apparatus for experimental study of the effects of chemical solutions on aquatic animals. Science 107:575-577 with A. Collier.

1950 A preliminary note on naturally occurring organic substances in sea water effecting the feeding of oysters. Science 111:151-152 with A. Collier and W. Magnitzky.

1952 A culture technique for the diagnosis of infection with Dermocystidium marinum Macklin, Owen, and Collier in oysters. Science 116:360-361.

1952 A culture technique for the diagnosis of infection with Dermocystidium marinum in oysters. National Shellfisheries Association Convention Addresses, p. 9-13.

1953 Studies on the occurrence of Dermocystidium marinum in young oysters. National Shellfisheries Association Convention Addresses p. 80-92.

1953 Quantitative measurement of the effect on oysters of disease caused by Dermocystidium marinum. Bulletin of Marine Science of the Gulf and Caribbean 3:6-33, with J.G. Mackin and J.L. Boswell.

1953 Effect of dissolved organic substances on oysters. U.S. Fishery Bulletin, Fish and Wildlife Service Bulletin 84, 54:167-185, with A. Collier, W. Magnitzky and J.O. Bell.

1954 Experimental studies on the transmission and pathogenicity of Dermocystidium marinum, a fungus parasite of oysters. Journal of Parasitology 40:235.

1954 Biological studies of Dermocystidium marinum, a fungus parasite of oysters. Rice Institute Pamphlet of Special Issue, November 1954, 114pp.

1955 Dermocystidium marinum, a parasite of oysters (Parasitological Reviews). Experimental Parasitology 4:172-199, with A.C. Chandler.

1955 Studies on the effect of infection by Dermocystidium marinum on ciliary action in oysters (Crassostrea virginica), National Shellfisheries Association Proceedings, 45: 168-180, with J.G. Mackin.

1956 Some effects of specific organic compounds on marine organisms. Science 124:200, with A. Collier and W.B. Wilson.

1956 The occurrence of Gymnodinium brevis in the western Gulf of Mexico. Ecology 37:388, with W.B. Wilson.

1957 Effects of unialgal and bacteria-free cultures of Gymnodinium brevis on fish and notes of related studies with bacteria. U.S. Fisheries Bulletin, Fish and Wildlife Service, Bull. 123, 57:469-496, with W.B. Wilson.

1961 Oyster Studies. In: U.S. Fish and Wildlife Service Circular 129, p. 72-74.

1962 Effects of various antibiotics on diagnosis of Dermocystidium marinum – A preliminary report. In: D.S. Gorsline (ed), The First National Coastal and Shallow Water Research Conference, Baltimore, Tallahassee, and Los Angeles, Oct. 1961 (abstract), p. 485.

1964 Marine Fisheries of Texas. Proceedings of Governor's Conference on Natural Resource Management and Development in Texas, Oct. 16-17, p. 92-96.

1965 Gymnodinium breve: Induction of shellfish poisoning in chicks. Science 148: 1748-1749, with D.V. Aldrich.

1966 A review of the culture method for detecting Dermocystidium marinum, with suggested modifications and precautions. Proc. National Shellfisheries Association, 54:55-69.

1966 Notes of the occurrence of Dermocystidium marinum in the Gulf of Mexico during 1961 and

1962. Proc. National Shellfisheries Association, 54:45-54.

1966 Cycloheximide: Inhibition of Dermocystidium marinum in laboratory stocks of oysters. Proc. National Shellfisheries Association, 56:31-36.

1966 Effects of various antibiotics on the fungus Dermocystidium marinum in thioglycollate cultures of oyster tissues. J. Invertebrate Pathology, 8:433-438.

1966 The taxonomic relationships of Dermocystidium marinum Mackin, Owen, and Collier. Journal of Invertebrate Pathology 8(4):544-545, with J.G. Mackin.

1967 Ecological interactions of toxic dinoflagellates and molluscs in the Gulf of Mexico. In: Animal Toxins, a collection of papers presented at the First International symposium on Animal Toxins, Atlantic City, New Jersey, April 9-11, 1966. Pergamon Press, Oxford and New York, p 75-83, with D.V. Aldrich.

1967 Gonyaulax monilata: Population growth and development of toxicity in cultures. Journal of Protozoology 14:636-639, with D.V. Aldrich and W.B. Wilson.

1968 Toxicity variations of Gymnodinium breve cultures. Toxicon 5:171-174 with J.J. Spikes, D.V. Aldrich and J.B. Nash.

1969 Laboratory study of algae as primary sources of biotoxins in human foods. In: John C. Ayers et al. (eds), 101 Problems in Food Science and Technology, Section 5, Toxicology, p. 163-163, with D.V. Aldrich.

1969 Studies on the pharmacology and toxicology of Gymnodinium breve toxin. The Pharmacologist 11(2) (abstract), with J.J. Spikes and J.B. Nash.

1970 Response of shellfish to two toxic dinoflagellates from the Gulf of Mexico. Abstract. Proceedings National Shellfisheries Association 60:10, with D.V. Aldrich, W.B. Wilson and A.M. Sievers.

1970 Current status of paralytic shellfish poisoning. In proceedings Third International Congress of Food Science and Technology (S0S/70), Washington D.C., August 9 - 14.

1970 Apollo 11: Exposure of lower animals to lunar material. Science 169:470-472, with C.A. Banschoter, T.C. Allison, J.F. Boyd, M.A. Broods, J.W. Campbell, R.O. Groves, A.M. Heimpel, H.E. Mills, J.W. Warren, K.E. Wolf, E.M. Wood, R.T. Wrenn and Z. Zein-Eldin.

1971 The real meaning, hazards and dangers of oil spills. Paper presentation at American Society of Mechanical Engineers, Oil Spill Panel, November 29, Washington D.C.

1971 Status report: Paralytic shellfish poisoning. In current topics in Comparative Pathology, Vol. 1, Academic Press, New York, T.C. Cheng (editor), p. 171-200.

1972 Purification of Gymnodinium breve toxin – dry column chromatographic technique. Texas Reports on Biology and Medicine 30(1):97-104, with N.M. Trieff and N. Venkatasubtamanian.

1972 Isolation and purification of Gymnodinium breve toxin. Proceedings 2nd International Symposium on Animal and Plant Toxins, Tel-Aviv, Israel, February 22 - 28, 1970. Pergamon Press, PAPER III-26, P. 557-577, with N.M. Trieff, J.J. Spikes and J.B. Nash.

1973 Microbial flora and level of Vibrio parahaemolyticus of oysters (Crassostrea virginica), water and sediment from Galveston Bay. Journal of Milk and Food Technology, Vol. 36, No. 10, with C. Vanderzant and C.A. Thompson, Jr.

1975 Isolation, physic-chemical, and toxicology characterization of toxins from Gymnodinium breve Davis. First International Red Tide Symposium, with N.M. Trieff, V.M.S. Ramanujam, M. Alam and J.E. Hudson. November 4 - 6.

1975 Gymnodinium breve: Population growth and development of toxicity in cultures. Proceedings of First International Conference on Toxic Dinoflagellate Blooms, November, 1974, Boston, MA, p. 127-141, with W.B. Wilson and D.V. Aldrich.

1975 Isolation and partial characterization of toxins from the dinoflagellate Gymnodinium breve Davis. Journal of Pharmaceutical Sciences, Vol. 64, No. 5, with A. Alam, N.M. Trieff and J.E. Hudson.

1975 Growth and mortality of two groups of oysters (Crassostrea virginica Gmelin), maintained in cooling water at an estuarine electric power generating station. TAMU-SG-75-207, with G.H. Gilmore and D.V. Aldrich.

1975 Mortality of marine organisms associated with offshore summer blooms of the toxic dinoflagellate Gonyaulax monilata Howell at Galveston Texas. Proceedings of the First International Conference on Toxic Dinoflagellate Blooms, November, 1974, Boston, MA, with W.J. Wardle and A.S.Aldrich.

1976 Relationship of Vibrio parahaemolyticus in oysters, water, and sediment, and the bacteriological and environmental indices. Journal of Food Science, Vol. 41, with C.A. Thompson and C. Vanderzant.

1976 Serological and hemolytic characteristics of Vibrio parahaemolyticus from Marine sources. Journal of Food Science, Vol. 41, with C.A. Thompson, Jr., and C. Vanderzant.

1976 Effects of processing, distributing and storage on Vibrio parahaemolyticus, and bacterial counts of oysters (Crassostrea virginica). Journal of Food Science, Vol. 41 with C.A. Thompson, Jr., and C. Vanderzant.

1977 The effect of depth on survival and growth of oysters in suspension culture from petroleum platform off the Texas coast, Gulf Research Reports, Vol. 6, No. 1, 31-37, with J. Ogle and W.J. Wardle.

1978 The feasibility of suspension culture of oysters (Crassostrea virginica) at a petroleum platform off the Texas coast, Contributions in Marine Science, Vol. 21, with J. Ogle and W.J. Wardle.

1978 24-Dimethyldinosterol: An unusual sterol from the dinoflagellate, Gonyaulax diagenesis. Tetrahedron Letters No. 38, pp. 3517-3518, with M. Alam and K.H. Schram.

1979 Dinoflagellate sterols: Sterol composition of the dinoflagellates of Gonyaulax species. Steroids, Vol. 33, No. 2, 197-203, with A. Alam, T.B. Sansing, E.L. Busby and D.R. Martin

1979 Dinoflagellate sterols. 2. Isolation and structure of 4- Methylgorgostanol from the dinoflagellate Glenodinium folicaceum. Journal or Organic Chemistry, Vol. 44 p.4466, with M. Alam and G.E. Martin.

1980 Bioaccumulation of anthropogenic toxins in the ecosystem. In: N.M. Trieff (ed), Environment and Health. Ann Arbor Science Publishers Inc., Ann Arbor,MI, p 93-120, with N.M. Trieff.

1982 Isolation and properties of isolated nuceli from the Florida red tide dinoflagellate Gymnodinium breve (Davis). J. Protozool. 29(2), pp. 217-222, with P.J. Rizzo and M. Jones.

1984 Compounds of seston and possible available food for oysters in Galveston Bay, TX, Contr. In Mar. Sci. 1984, Vol. 27:127-141, with T.M. Soniat and L.M. Jeffery.

1984 Manual on marine toxins in bivalve molluscs and general consideration of shellfish sanitation. CMFRI Special Publication #16 by the Centre of Advanced Studies in Mariculture, Central Marine Fisheries Research Institute, Cochin, India.

1985 Relationships between possible available food and the composition, condition, and reproductive state of oysters from the Galveston Bay, Texas. Contributions in Marine Science 1985, Vol. 28, pp.109-121, with T.M. Soniat.

1987 Salinity Requirements of the American oyster, Crassostrea virginica. Pages 1-E.28 In Mueller, A.J. and G.A. Mathews. 1987, Freshwater inflow need of the Matagorda Bay System with focus on penaeid shrimp. U.S. Department of Commerce NOAA Tech Mem. NMFS-SEFC-189. (March 1987). 97p pp. and 66 Append pp.

1987 Host to Host transfer of Perkinsus marinus in oysters (Crassostrea virginica) populations by the ectoparasite snail Boonea impressa (Pyramidellidae). J Shellfish Res. 6: 1-5, with M.E. White, E.M. Powell and E.A. Wilson.

1987 Small- scale spatial distributions of a snail ectoparasite, Boonea impressa, in relation to its oyster host, Crassostrea virginica, on oyster reefs. P.S.Z.N.I.: Marine Ecology, 8: 107-130, with E.N. Powell, M.E. White and E.A. Wilson.

1987 Small-scale spatial distribution of oysters (Crassostrea virginica) on oyster reefs. Bulletin of Marine Science 41 (3): 835-855, with E.N. Powell, M.E. White and E.A. Wilson.

1987 Change in host preference with age in the ectoparasitic pyramidellid snail Boonea impressa (Say). J.Moll. Stud. 53:285-286, with E.N. Powell, M.E. White and E.A. Wilson.

1988 Metabolic changes induced in oysters (Crassostrea virginica) by the parasitism of Boonea impressa (Gastropoda: Pramidellidae). Comp. Biochem. Physiol. 90A (2):279-190, with M.E. White, E.N. Powell, E.A. Wilson and C.E. Zastrow.

1988 Managing public oyster reefs: Texas experience. J. Shellfish Res. 7(3):501-503, with R. Hoffstetter.

1988 The effects of the ectoparasitic snail, Boonea impressa, on the growth and health of oysters, (Crassostrea virginica) under field conditions. Fishery Bull. 86(3):553 - 566, with E.A. White and E.N. Powell.

1988 Management strategies to control the disease caused by Perkinsus marinus. American Fisheries Society Special Publication 18:257 - 264, with J.D Andrews.

1988 Effect of parasitism by the pyramidellid gastropod Boonea impressa on the net productivity of oysters (Crassostrea virginica). Estuarine Coastal and Shelf Science 26, 359-377, with M.E. White and E.N. Powell.

1988 Patch formation by the ectoparasitic snail Boonea impressa on its oyster host, Crassostrea virginica. The Veliger 31(1/2) 101-110, with E.A. Wilson, M.E. White and E.N. Powell.

1989 The Spatial distribution of Perkinsus marinus, a protozoan parasite, in relation to its oyster host (Crassostrea virginica) and an ectroparasitic gastropod (Boonea impressa).
J. Mar Biol. U.K. 69, 703-717, with M.E. White, E.N. Powell and E.A. Wilson.

1989 The energetic cost of Perkinsus marinus parasitism in oysters: Quantification of the thioglycollate method. Journal of Shellfish Research Vol. 8(1) 122 - 131, with K.S. Choi, E.A. Wilson, D.H. Lewis and E.N. Powell.

1996 Historical perspective on Perkinsus marinus disease of oysters in the Gulf of Mexico. J. Shellfish Research 15: 9 - 11.

2001 Effect of dissolved organic matter on the uptake of trace metals by American oysters. Environ. Sci. Techno. 35:885 - 893, with L. Guo, B.J. Hunt and P.H. Santschi.

2002 Intrinsic membrane protein in oyster sperm stimulates spawning behavior in *Crassostrea virginica*: Implications for aquaculture. Journal of Shellfish Research 21: 715 – 718, with P. Rice, S. D. Painter and G. T. Nagle.

2002 Metal partitioning between colloidal and dissolved phases and its relation with bioavailability to American oysters. Marine Environmental Research, 54: 49 – 64, with L. D. Guo and P. H. Santschi.

2006 Protective role of alginic acid against metal uptake by American Oyster (*Crassostrea virginica*). Environmental Chemistry 3: 172 - 183, with J. M. Haye, P. H. Santschi and K. A. Roberts.

2008 Current status of Dermo disease and oyster harvest in West Bay, Galveston, TX. Journal of Shellfish Research 27: 1046.

2008 The emergence of shellfish pathology. Journal of Shellfish Research 27: 1046, with T. M. Soniat.

2009 Managing *Perkinsus marinus* through freshwater inflows to estuaries. Journal of Shellfish Research 28: 723, with T. M. Soniat.

2009 Environmental monitoring, disease surveys and oyster husbandry for the management of *Perkinsus marinus* in the Gulf of Mexico. Journal of Shellfish Research 28: 730, with T. M. Soniat.

ADDENDUM TO VITAE FOR SAMMY M. RAY

For the past quarter of a century one of my major activities has been the development and operation of summer camps providing hands-on environmental experience and training in the area of marine and estuarine ecology for young students and teachers. I have had some international experiences in the area. In 1988 I spent five weeks in assisting a private school (Objectivo) in Brazil with the establishment of a National Sea Camp Program. The faculty was located on the Atlantic coast about 100 miles south of Rio de Janeiro.

In addition to the community and youth programs, my current research focused on oyster hatchery operations, oyster aquaculture and the use of coal-ash material to enhance or build oyster reefs. Other areas of research include wetlands protection and environment education for teachers and senior citizens, and oyster biology in general, with special interest in oyster diseases, estuarine ecology and harmful algae.

OFFICE OF THE PRESIDENT

TEXAS A&M UNIVERSITY

August 13, 2012

Laureates Nominations
Rice University
Office of Alumni Affairs — MS 520
P.O. Box 1892
Houston, Texas 77251-1892

Dear Sir or Madam:

I am pleased to nominate Dr. Sammy Ray for consideration for the Association of Rice Alumni Distinguished Alumni Award.

Dr. Ray, still going strong on our campus at age 93, is a Professor Emeritus of marine biology at Texas A&M University at Galveston, where he is an expert on oyster biology, oyster aquaculture and hatcheries, invertebrate pathology, and environmental impact assessment and coastal zone management. He earned both his master's degree (1952) and Ph.D. (1954) in biology from Rice University.

For more than half a century, Dr. Ray has been an international leader in oyster research as a major staple in aquaculture and also as a reflection of the environmental health of the Gulf of Mexico. The diagnostic method he developed in the early 1950's to detect the disease agent *Dermocystidium marinum* (now known as *Perkinsus marinus*) in oysters is still the most widely used in oyster disease studies. In addition, the website that he and a colleague established in 2007, *Oyster Sentinel*, is one of the most highly regarded avenues for monitoring the environmental health of estuaries along the Gulf of Mexico.

His research has helped propel Texas A&M at Galveston to among the top ten public universities in Texas in terms of research grant dollars generated per full-time faculty member.

Dr. Ray's scientific contributions are significant in other areas as well. The Smithsonian Institution is paying him tribute as one of six displays in the "'When Time and Duty Permit': Smithsonian Collecting during World War II" exhibit (which will be available through May 2013) chronicling his contributions to ornithological research conducted on the Smithsonian's behalf in a World War II combat zone. Ray and other soldier-scientists gathered bird specimens for the purpose of identification of species, as well as disease prevention for soldiers. The name

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of the exhibit is a quote from one of Ray's letters at the time. Ray's research made significant and lasting contributions to the Smithsonian's bird collection and to our scientific understanding of birds.

Dr. Ray is an exceptional leader in other ways as well, having served the university in several key administrative positions, including Head of the Department of Marine Sciences, Dean of the Moody College of Marine Technology, and Interim President.

In addition, in 1986 he created the highly regarded Sea Camp at the university, a week-long program that teaches children aged 10 through 18 about marine and estuarine environments through hands-on experiences. Since its inception, Sea Camp has touched the lives of more than 16,000 campers and 2,000 science educators.

Although Dr. Ray officially retired in 1990, he remains very active as a researcher, student advisor, and coordinator of student programs and several community outreach programs. He has received numerous awards and honors, including a lifetime honorary membership in the National Shellfisheries Association.

I believe that Dr. Ray is most deserving of this award. Thank you for your consideration.

Sincerely,

R. Bowen Loftin
Professor of Industrial and Systems Engineering and President
Rice MA '73, Ph.D. '75

William A. Seitz
Senior Vice President and Chief Academic Officer
Associate Provost, TAMU

TEXAS A&M UNIVERSITY at GALVESTON

August 24, 2012

Laureates Nominations
Rice University
Office of Alumni Affairs — MS 520
P.O. Box 1892
Houston, Texas 77251-1892

Dear Sir or Madam:

I am pleased to nominate and support Dr. Sammy Ray for consideration for the Association of Rice Alumni Distinguished Alumni Award.

Sammy is 93 years old – and still works daily in his laboratory at Texas A&M University at Galveston where he has been for more than 50 years after obtaining his PhD at Rice. He is a Texas icon! In WWII, Sammy served as a medical corpsman in the US army where he was asked by the Smithsonian to utilize his experience in ornithology and taxidermy, to collect specimens in the Pacific zone where he was stationed. His response to this request "when time and duty permit" is now the title of the exhibit of his collection at the Smithsonian that opens this year.

Sammy made his scientific reputation - studying oysters. Beginning in the early 1950's his work on oyster disease has been at the forefront of seafood safety. In fact, today, Texas A&M University at Galveston is one of only two FDA approved and Texas Health Department approved sites for oyster seafood safety studies.

He has received the prestigious Piper Award – one of only two ever given in Galveston. He has served as Dean and Interim President in Galveston as well.

In April, 2010, aquaculture experts from around the world gathered at the Houston Preserve owned by Mr. George Mitchell. There they inaugurated and planned the establishment of the Sammy Ray Aquaculture Center in Galveston. That center is now operating in the new $50 million Ocean and Coastal Studies Building – a fitting symbol for the quality of marine science begun 50 years ago by Dr. Ray in a converted army barracks.

Rice has had many great alumni who found success in a wide array of fields. As a pure academic, I know of none who surpass Dr. Sammy Ray. He would be deeply honored by your recognition of him by naming him as a Distinguished Alumnus of Rice University.

Sincerely,

William A. Seitz

William Seitz, BS Rice '70
Regents Professor
Associate Provost, TAMU
Senior Vice President and Chief Academic Officer, TAMUG

P.O. Box 1675
Galveston, TX 77553-1675

Tel. 409.740.4408 Fax 409.740.4407
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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Fisheries Science Center
Galveston Laboratory
4700 Avenue U
Galveston, TX 77551

409-766-3500

August 23, 2012 F/SEC4:RZ:ro

Laureate Nominations
Rice University
Office of Alumni Affairs – MS 520
PO Box 1892
Houston, TX 77251-1892

Dear Sir or Madam:

It is an honor and my pleasure to support the nomination of Dr. Sammy Ray for the Association of Rice Alumni Distinguished Alumni Award.

Dr. Ray and I have been professional associates and become good friends since I came to the NOAA Fisheries Laboratory in Galveston over 30 years ago. In fact, Dr. Ray's connection to our Laboratory goes back to its beginnings in the 1950's when it was under the Department of Interior's Bureau of Commercial Fisheries and he was a graduate of Rice University having just completed his Doctorate degree. His first job here was to work on red tide research with Director Albert Collier and phytoplankton specialist Bill Wilson. In doing so, he became part of a team that determined the red tide toxin to be definitively produced by the dinoflagellate *Gymnodinium brevis* (now *Karenia brevis*).

When Albert Collier left the BCF in 1956 to start a marine laboratory for Texas A&M University, Dr. Ray followed in 1957. Dr. Wilson joined them shortly thereafter and, again, as an energetic and motivated team, they formed the nucleus of the Texas A&M Research Foundation in Galveston. This grew to become the TAMU Marine Biology Department at Fort Crockett and eventually the fully developed Texas A&M University campus at Galveston on Pelican Island that we know today. But the path of getting there was neither simple nor easy and it nearly ended when Albert Collier left in 1962 to become head of the Florida Institute of Oceanography. The young Dr. Ray was tapped at that time to be the Director of the Laboratory, which had been gutted of staff and funding.

It is no understatement to say that it was through Dr. Ray's forward thinking and persistence that the institution in Galveston survived. A pivotal action at the time was his establishment of a teaching program initiated in 1964 with a course in the Biology of Mollusca taught by Dr. John Mackin (TAMU), Dr. Harold Harry (Rice University) and himself. The teaching program, once begun, justified institutional and financial support from the parent school at College Station and it allowed the incipient Laboratory to not only survive but to grow. Resident research and teaching faculty increased from two (Dr. Harry and Dr. Ray) in 1964 to six in 1967 with additions of Drs. Dave Aldrich, Bill Wilson, Ed Chin and Tai S. Park.

The rest is history and Dr. Ray was there then and he is still. The others are long since gone but most remarkably he is still doing what he has always done. He is a little slower at the age of 93, but has no less enthusiasm, honest interest and a wealth of knowledge to spill out. There are few, if any, who I enjoy sitting down with or standing in a parking lot to talk with more than Dr. Ray. It is usually about oysters, Dermo, birds, students, his latest proposal or history. I always come away enlightened and motivated.

It is my honest opinion that what we see in organization, support and knowledge in marine sciences today would not have occurred if it had not been for those unique individuals like Dr. Sammy Ray. For this and all he has given to the development of marine sciences in our region and to the nation, to mentorship of literally hundreds of students and to stimulation of research with colleagues, he deserves to be recognized and lauded.

Please accept my support of Dr. Ray's nomination.

Sincerely,

Roger J. Zimmerman, Ph.D.
Director, Galveston Laboratory
NMFS/SEFSC

Smithsonian to exhibit Texas man's WWII birds

ALLAN TURNER, Houston Chronicle
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GALVESTON, Texas (AP) — As a pharmacist with the 11th Marines, Sammy Ray took part in some of the fiercest battles of World War II. He was at Okinawa, and still trembles at memories of the peril he faced at Peleliu - for America, the bloodiest battle of the South Pacific.

Attacking Japanese positions may have been the apex of his military years, but the future Texas A&M University professor's academic achievements were equally compelling. For much of his time in the South Pacific, Ray's weapon of choice was a slingshot or a stock-mounted pistol that fired dove shot. His targets were rainbow lorikeets, cardinal lories and Solomon Island cockatoos.

Ray, later interim president of Texas A&M-Galveston, dean of the Moody College of Marine Technology and creator of the popular summer Sea Camp program for kids, was one of hundreds of soldier-scientists who prowled war zones in search of plants, minerals, shells, insects and animals on behalf of the Smithsonian Institution.

Beginning this month, the Washington, D.C., museum will mount a small yearlong exhibition featuring specimens - including some of Ray's nearly 200 birds - collected from the war's Pacific theater.

"By the end of the war," Smithsonian historian Pamela Henson said, "the Smithsonian had become a powerhouse in South Pacific natural history."

Ray, 93, son of a Syrian immigrant peddler, grew up in a series of small Mississippi towns. His introduction to the world of science came from an acquaintance, Merritt Gordon Vaiden, an amateur ornithologist.

At the behest of his parents, Ray decided to drop out of high school to take a post office job. "In Rosedale, a town of 2,000, I never once dreamed of going to college," Ray said. "What was there for me to do except to run a service station or work in a dry goods store? ... Gordon pointed a finger at me and said, 'Sammy, if you don't finish high school, you'll make the greatest mistake of your life.'?"

Vaiden offered to teach Ray taxidermy and pay him $38 a month. Ray accepted, a move that led to his graduation from high school - 12th in a class of 13 - and enrollment at Sunflower Junior College to study biology.

rough Vaiden's connections and his own improving academic performance, Ray continued his studies at Louisiana State University. After a stint in a mosquito control program, he joined the Navy as a pharmacist's mate. His ties to the world of bird research brought him to the attention of the Smithsonian. "Collecting birds - that was my mission. To hell with the Japanese," Ray said.

The young pharmacist's mate, attached to the 1st Marine Division's artillery unit, soon tasted the bitterness of war.

In summer 1944, the 1st Division and the Army 81st Infantry attacked the Japanese stronghold of Peleliu, a coral island honeycombed with fortified bunkers and caves and home to an enemy force of 11,000. The battle lasted more than two months and the Marine division suffered more than 6,000 casualties.

"Looking back on it now," Ray said, "I don't know how the hell I got out of there alive."

Ray's scientific duties, performed at rest camps away from battle, often ruffled the feathers of military brass. On New Caledonia, where he lacked permission to fire his birding gun behind the lines, he felled specimens with a slingshot.

"One of the big problems was that if there was a shot fired behind the lines, no one knew if there was a sniper," Ray said. Through suave diplomacy, Ray succeeded in smoothing the way for his collecting.

A night in a swamp

On a collecting trip in a mangrove swamp on Pavuvu, Ray was separated from fellow Marines. Without knowledge of an all-important password, he had no way of safely returning to camp.

"I was afraid to come out. Without hearing the password, sentries don't ask any questions," Ray said. "I spent the night in the swamp, slept on logs. Big lizards, iguanas, land crabs crawled all over me. I was surrounded by a pack of wild dogs."

At dawn, Ray returned to receive a chewing-out from his colonel. "Afterward," Ray said, "he and I developed a very good relationship. ... As senior pharmacist, I had control of the sick bay's alcohol and I took care of the colonel. He took care of me. I got to shoot behind the lines."

The Smithsonian's use of Ray and other enlisted personnel as collectors was an outgrowth of the institution's earlier assistance in the war effort, Henson said. "We were sending information to the

military because they didn't know much about the South Pacific," she said. "We provided maps, photographs, information about food, insects and disease. We wrote their first survival manual."

At war's end, Ray returned to the states to pursue a medical degree. Instead, he joined an oil company team investigating the cause of an oyster die-off, a job that redirected his career.

After obtaining master and doctorate degrees at Rice University, he worked as a federal research biologist, then, in 1957, joined Texas A&M.

"Birds," Ray said, "have turned my life around in two ways."

The first was the alternative they provided to a career as a postal clerk; the second, the role they played in "capturing the love of my life."

Ray met his future wife, Charlotte, when, as a junior college newspaper editor, she interviewed him for an article on bird collecting.

During the interview, Ray invited the woman to handle a harmless, 5-foot-long chicken snake. Though shaken, his future wife succeeded in manipulating the reptile back into his bag.

"I thought to myself: 'If she can handle a snake, maybe I have a chance with her,'?" Ray said.

The couple has been married 69 years.

Information from: Houston Chronicle, http://www.houstonchronicle.com