

## **JAMES JOSEPH, 1930-2009**

Dr. James Joseph, Director of the Inter-American Tropical Tuna Commission (IATTC) for 30 years, from 1969 to 1999, died suddenly on December 16, 2009.

He was born in Los Angeles, California, in 1930. After graduating from high school, he entered Humboldt State College (now Humboldt State University), in Arcata, California. His education was interrupted by service in the U.S. Army from 1952 to 1954. He then returned to Humboldt State, from which he obtained a B.S. degree in 1956 and an M.S. degree in 1958. He was then hired by the IATTC, and spent the next two years in Manta, Ecuador, studying baitfishes and tagging tunas. He was then transferred to Terminal Island, California, and then to La Jolla, California. Because of his obvious ability, Dr. J.L. Kask, Director of the IATTC at the time, named him Principal Scientist of the IATTC in 1964. He earned his Ph.D. degree from the University of Washington, where he studied population dynamics under the late Dr. Gerald J. Paulik, in 1967. In 1969, when Dr. Kask retired, Dr. Joseph was selected as the new Director of the IATTC.

Many changes took place in the tuna fisheries of the world, especially those of the eastern Pacific Ocean (EPO), during the three decades during which Dr. Joseph was Director of the IATTC. Larger, more efficient boats were constructed, and many of them were registered in nations that had not previously been important participants in the fishery. The concept of 200-mile Exclusive Economic Zones was not widely recognized at the beginning of this period, but by the end of his tenure these are vigorously enforced by most nations. The catches of tunas in the EPO and in other parts of the world increased greatly during this period, and many stocks of tunas now appear to be fully exploited. At least two of them, Atlantic bluefin and southern bluefin, are considered to be overexploited. As a result, many fisheries for tunas are now regulated. Dr. Joseph was definitely the right person at the right time for Director of the IATTC. His vision and leadership were crucial in resolving the often contentious differences that arose among the countries, industries, and people involved. He commanded the highest respect and admiration for his extensive knowledge of all matters related to fisheries, his dedication, his fairness, and his extraordinary ability to get things done. He had the gift of finding the common ground among conflicting parties, and of bringing about consensus when none seemed possible. His reputation for unimpeachable probity made him perhaps the most widely respected and admired figure in international fisheries management. His uncanny knack for making all parties feel that they mattered, his ability to get along with a wide variety of people of every social, cultural, and national background, and his perspectives on many matters were unique, or nearly so. He thought, rightly, that in the complex world of fisheries conservation and management, in which many different parties—governments, fishermen, processors, environmentalists, scientists—have an interest, no lasting solution is possible unless all parties were involved.

In addition, there has been much concern about the effect of fishing on incidentally-caught species, particularly marine mammals. During most years of the 1960s, 1970s, and early 1980s the annual mortalities of dolphins in the EPO due to the purse-seine fishery for tunas exceeded 100,000 animals. In 1972 the U.S. Marine Mammal Protection Act (MMPA), which profoundly affected the fisheries for tunas in the EPO was passed, and its provisions were gradually strengthened during the ensuing period. Under Dr. Joseph's leadership, the IATTC initiated its Tuna-Dolphin Program, placing observers aboard fishing vessels to collect data on

fishing activities and dolphin mortality, sponsoring seminars to facilitate the transfer of dolphin-saving techniques from the more skilled to the less skilled fishermen, and conducting basic research on the population dynamics of dolphins. In 1986, the first year in which the IATTC placed observers aboard tuna vessels of all nations, the annual mortality exceeded 133,000 animals. In June 1992 the nations involved in the fishery adopted the Agreement for the Conservation of Dolphins (“the 1992 La Jolla Agreement”), a voluntary instrument designed to reduce or eliminate the mortality of dolphins, and by 1998 this had decreased to less than 2,000 animals, a biologically-insignificant amount. On May 21, 1998, the Agreement on the International Dolphin Conservation Program, which formalizes, extends, and adds to the provisions of the 1992 La Jolla Agreement, was signed, and it subsequently came into effect on February 15, 1999, when four nations had ratified it. During the period when the dolphin mortalities were decreasing precipitously the catches of tunas in the EPO were increasing, demonstrating that it is not necessary to curtail fishing to protect dolphins. Dr. Joseph provided leadership through the many years of this complex and difficult process, and he deserves much of the credit for this remarkable achievement.

Tunas and billfishes were certainly not neglected during this period. For example, the IATTC staff has pioneered in the development of methods for stock assessment of tunas, and the population dynamics of yellowfin tuna in the EPO are probably better understood than those of any other stock of tuna. Also, great strides in understanding of the reproduction and early life history of tunas have been made through work in the field and at the IATTC’s Achotines Laboratory in Panama, established during Dr. Joseph’s tenure as Director. Ecosystem studies also increased in importance during his tenure, and set the stage for advances that came later. The IATTC staff, in cooperation with several other organizations, developed multi-species modeling approaches to evaluate the relative ecological implications of alternative fishing strategies in the EPO and the effect of climate variation on the food web. Dr. Joseph appreciated the value of improving the understanding of food-web dynamics in the pelagic EPO, given that accurate depictions of trophic connections and flows are the backbone of ecosystem models. Studies of stable isotopes of nitrogen and carbon and of predator diets have provided insight into ecosystem modeling.

After his retirement in 1999, Dr. Joseph served as a consultant for various organizations in many parts of the world. At the time of his death, he was Chairman of the Science Committee of the International Seafood Sustainability Foundation.

Dr. Joseph was an affiliate professor at the University of Washington and at the Universidad Nacional Autónoma de México. He had served on numerous advisory committees, task forces, and consultative groups in the United States and elsewhere, including those of the U.S. National Academy of Sciences, Department of Commerce, and Department of the Interior. He lectured on subjects relating to marine research and resource conservation all over the world. Additionally, he served as a technical advisor to many international organizations, government ministries, and heads of state on matters pertaining to marine science, especially marine resource development, management, and conservation. He published numerous papers and articles in scholarly and trade journals, and co-authored three books.

His many awards and honors include the Distinguished Alumnus Award, Humboldt State University; Outstanding Achievement Award for Contributions to Marine Science, Portuguese Historical Society, San Diego; Outstanding Graduate in Fisheries, Humboldt State University;

Nautilus Award, Marine Technological Society; Dave Wallace Award, Nautilus Press, Inc.; *Docteur Honoris Causa*, Université de Bretagne, Brest, France; Roger Revelle Award, San Diego Oceans Foundation; *Al Mérito Pesquero* Award, Ministry of Commerce of Ecuador; Condecoración del Orden Antonio José de Sucre, Government of Venezuela. In addition, the IATTC was selected as the recipient of the Carl L. Sullivan Fishery Conservation Award of the American Fisheries Society in 1994.

Dr. Joseph is survived by his wife Patricia, two sons, Jerry and Michael, five grandchildren, three brothers, and three sisters.