

In Memoriam



JOSÉ IGNACIO MARTÍNEZ RODRÍGUEZ

Dr. José Ignacio Martínez, recognized for his research on the El Niño Southern Oscillation (ENSO), dies at age 60.

The climate of the last 2.7 million years was quite unusual in the geological history of our planet, as it combined four climate attributes that seldom occur together. These included: 1) a high gradient of latitudinal temperature, 2) permanent ice in the Arctic, 3) CO₂ levels less than 200 ppm, and 4) a high meridional temperature gradient across the tropical Pacific Ocean. It is with respect to this last point, in particular, that José Ignacio Martínez made very important contributions to science. José Ignacio investigated Pleistocene conditions in the warm pool of the western Pacific Ocean, especially the Tasman Sea, between Australia and New Zealand, and how such conditions related to the longitudinal gradient of temperature across the equator, from the eastern to the western Pacific. José Ignacio made important contributions to the understanding of how this gradient varied during the glacial/interglacial periods. These studies were complemented by a series of investigations in the western equatorial Pacific, in the Panama Basin and the Colombian Pacific margin. His findings showed that during glacial periods, the Chocó jet atmospheric current, one of the main components of the climate of Colombia, intensified and transported large amounts of humid air from the equatorial Pacific to the Central Colombian Andean Cordillera, thus enabling the rapid development of Andean glaciers. His research findings are used widely to better understand past and predict future tropical climate.

José Ignacio used foraminifera, small, shelled organisms that live in the oceans and preserve well in sediments, as his research subject. He was a leader in his field throughout Latin America. His micropaleontological expertise enabled him to use these microorganisms as biostratigraphic markers and paleoecological tools, and he studied foraminiferan remains in deposits from the Upper Cretaceous through the Cenozoic. His important findings will continue to be used by geologists and researchers in other fields for decades to come. During his last years, José Ignacio also studied late Holocene climate in Colombia, using sediment terraces along the Cauca River.

José Ignacio Martínez was born in Bogotá, Colombia on 15 May 1956 to parents José Martínez and Narcisca Rodríguez. He married Ingrid Escobar and they had a daughter, Luisa and a son, Daniel. José Ignacio received the title of Geologist in 1982 from the Universidad Nacional de Colombia in Bogotá. As a professional geologist, he began work in Ingeominas, but was soon awarded a scholarship by the British government to pursue a Master's degree in micropaleontology at Hull University, which he completed in 1987. He later returned to Colombia to continue working for Ingeominas and as a consultant for the oil industry. In 1990 he received a scholarship from the Australian Government to pursue doctoral studies at the Australian National University, in Canberra. He graduated with his PhD in 1994 and returned once again to Colombia, where he joined the Colombian Institute of Petroleum for two years. His passion for research and academia, however, led him to accept a postdoctoral fellowship at the Australian National University. He returned to Colombia in 1998 as a professor in the Department of Geology at Eafit University (Medellín), a position he occupied for the last 18 years.

José Ignacio participated in numerous oceanographic cruises, including ODP 134 in Vanuatu, FR2 and FR10 in the Indian Ocean, Nemo-3 and Amadeus in the eastern equatorial Pacific, and Knoee 176 in the Panama Basin. He was

a member of the editorial board of the journal *Palaeogeography, Palaeoclimatology, Palaeoecology*, part of the scientific committee of PAGES (PAST Global Changes - IGBP), and a corresponding member of the Colombian Academy of Exact, Physical and Natural Sciences. José Ignacio also received mentions as the best professor in the Geology Department at EAFIT, the annual research award from EAFIT University and a mention of Honor in Natural Sciences from the Alejandro Ángel Escobar Foundation. His intellectual production is registered in more than 60 scientific publications in international and national journals, making him one of Colombia's most productive scientists and one of the most internationally recognized Colombian geologists.

Many of José Ignacio's students learned to enjoy the beauty and mysteries of the natural world through his teaching. José Ignacio was known for his respect and friendly treatment of others, as well as his patience, joy, and calm demeanor. He had a passion for science, and always expressed his ideas in a respectful manner, with scientific rigor. His broad and deep knowledge helped all those who were fortunate enough to work with him become better scientists and people. José Ignacio taught by example, every day of his life. We will miss his keen sense of humor and the brilliant way he used words to tell jokes and make people laugh. We will also miss his open office door – an invitation to enter and discuss not only science, but to receive sound advice on many topics. Today we say farewell to our mentor, teacher, colleague and dear friend. He left us far too early, but will always be remembered.

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