



**MARTIN ANDRES MEDINA ELIZALDE**  
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**Education**

Sept 2002– Today	<b>UNIVERSITY OF CALIFORNIA SANTA BARBARA</b> Interdepartmental Program in Marine Science <ul style="list-style-type: none"> <li>5th year Ph. D. candidate working on Geochemistry, Paleoclimatology and Paleoceanography</li> </ul>	USA
Sep. 1997 - March. 2000	<b>CENTER OF RESEARCH AND ADVANCES STUDIES</b> Department of Marine Biology <ul style="list-style-type: none"> <li>Degree in Master in Sciences on Pollution of natural systems and Marine Geochemistry</li> </ul> Advisor: Dr. Gerardo Gold Bouchot Committee: Dr. David Valdes, Dr. Jose Carricart, Dr. Lus Capurro	Merida, Yucatan, Mexico
1994 - 1997	<b>UNIVERSITY OF BAJA CALIFORNIA SUR</b> BA. Degree in Marine Biology Experience in coral reef ecology, and geochemistry	Baja California Sur, Mexico

**JOB AND EQUIPMENT EXPERIENCE**

March 2000- Aug-2002	Chemical Analyst Experience in quantification of metals and hydrocarbons by Gas chromatography, atomic absorption spectrometry and inductively coupled plasma atomic emission spectrometry (ICP AES)	Cinvestav- IPN Mexico
Sept-2005 to present	Experience in light stable isotopic determination by isotope ratio mass spectrometry.	UCSB Woodhouse Laboratory

## ADDITIONAL INFORMATION

**Nacionality:** Mexican

**Place of Birth:** Montevideo, Uruguay

**Computer Skills:** Excel, Word, PowerPoint, Illustrator.

**Language:** Spanish and English

## Publications:

Medina-Elizalde, M., G. Gold-Bouchot and V. Ceja-Moreno (2002). "Lead contamination in the Mexican Caribbean recorded by the coral *Montastraea annularis* (Ellis and Solander)." *Marine Pollution Bulletin* 44(5): 421-423.

Medina-Elizalde M and Lea W. D. The Mid-Pleistocene Transition in the Tropical Pacific. *Science* 310, 1009 (2005). This paper was published in electronic format in *Science Express* on October 13, 2005.

Medina E. M. Las Glaciaciones, el Dióxido de Carbono y el Calentamiento Global. *Avance y Persp.* 24, 45 (2005)

Hansen J., Sato M., Reto R., Ken Lo., Lea D. and Medina-Elizalde M. Global Temperature Change. *Proc. Nat. Acad. Sci.* 103, 14288-14293 (2006).

## Honors:

- Awardee of CONACYT-UCMEXUS Ph.D. SCHOLARSHIP
- Awardee of WENDELL PHILLIPS WOODRING MEMORIAL GRADUATE FELLOWSHIP for the thesis with the highest merit.
- Awardee of NEJAT'S MEMORIAL MARINE SCIENCE FELLOWSHIP for the best written essay.
- Awardee of National Science Foundation Travel Grant to attend the AGU Chapman Conference on Tropical-Extratropical Climatic Teleconnections; A Long-Term Perspective
- Awardee of NOAA Climate and Global Change Postdoctoral Fellowship (2007)

## Conferences:

Medina-Elizalde, M.A. y Gold-Bouchot, G. Cronología de la razón Pb/Ca en esqueletos de coral *Montastrea annularis* del Caribe Mexicano. XII Congreso Nacional de Oceanografía. Huatulco, Oax., México (2000).

Medina-Elizalde, M.A. y Gold-Bouchot, G. Contaminación de plomo Medina-Elizalde, M.A. y Gold-Bouchot, G. 1er Congreso Nacional sobre Arrecifes de Coral. Veracruz, Veracruz (México). Universidad Veracruzana y Acuario de Veracruz A. C. 28 June – 1 de July.

Medina-Elizalde M. Lea D. and Spero H. Temperature History of the Western Equatorial Pacific over the last 1.3 Ma. American Geophysical Union, 1<sup>st</sup> Conference on Tropical-Extratropical Climatic Teleconnections; A Long-Term Perspective, Hawaii, 2005

Medina-Elizalde M. and Lea D. The Mid-Pleistocene Transition In The Tropical Pacific. American Geophysical Union, San Francisco, USA, 2005.

Medina-Elizalde M. Global Warming: Scientific Aspects, historical context and climatic impacts. 1<sup>st</sup> Environmental Conference. Secretaria de Desarrollo Urbano y Medio Ambiente (SEDUMA). Mexico, June 5, 2007

#### **Posters:**

Medina-Elizalde M. and Lea D. The Western Equatorial Pacific Thermal Evolution. American Geophysical Union. San Francisco, USA, 2003, 2004 and 2006.

#### **Research Interest:**

My main research interest is in the fields of Paleoclimatology and Paleoceanography. I am particularly interested in the reconstruction of tropical climate evolution from marine and land archives (corals, marine sediments and speleothems) using chemical proxies (Mg/Ca paleothermometry and stable isotopes;  $\delta^{18}\text{O}$  and  $\delta^{13}\text{C}$ ). The final goal of this research is to describe tropical climate evolution over time scales of decades to thousand of years and to understand the role of greenhouse gases and other radiative forcing agents in driving this variability.

I am currently working on the reconstruction of the climate evolution of the Western Equatorial Pacific warm pool during the Pleistocene and Pliocene periods and evaluating the role of atmospheric greenhouse gases and other radiative forcing agents on climate at this time.

In addition, I am working on the reconstruction of past climate variability of the Yucatan Peninsula, Mexico, during the Holocene and the Pleistocene, using stable isotopes in stalagmite archives from Caves of the Yucatan Peninsula. The final goal of this research is; 1) to describe historical climate variations (temperature, vegetation and hydrological changes) in Yucatan's climate; 2) to describe past changes in the distribution of the Intertropical convergence zone (ITCZ), the atmospheric feature which determines the climate patterns in the tropical regions; and; 3) by understanding Yucatan's Pleistocene climate evolution during warmer interglacials than the current (e.g. MIS 6 and 11); to predict the tropical climate response to different global warming scenarios.

