

# Luz Verónica Rodríguez Villanueva

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## EDUCATION

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February 01-May 2005

**Ph.D. Coastal Oceanography.** *Instituto de Investigaciones Oceanograficas (I.I.O.) Universidad Autonoma de Baja California (UABC).* México. Thesis title (*translated from original in Spanish*): “Structure of benthic invertebrate communities and its relation with physical-chemical variables of sediments in the coastal zone of Tijuana-Ensenada, Baja California, Mexico.”

*Thesis Advisor: Dr. Vinicio Macias*

September 94-November 97

**MS. Marine Ecology.** *Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE), Baja California.* México. Thesis title (*translated from original in Spanish*): “Study of the community of polychaetous annelids of Bahía Todos Santos, Ensenada Baja California, México.”

*Thesis Advisor: Dr. Victoria Diaz*

September 86-October 93

**BS. Biology.** *Universidad Nacional Autónoma de México (UNAM).* México, D.F., México. Research presented. (*trans.*) “The polychaete fauna (Annelida: Polychaeta) of the southern Gulf of Mexico continental platform.”

*Advisor: Dr. Vivian Solis Weiss*

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## MAJOR RESEARCH INTEREST

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Seafloor community ecology and oceanography of benthic systems, including recruitment, succession, bioturbation, and disturbance. Taxonomy and systematics of marine invertebrates, with emphasis on the Phylum Annelida: Polychaeta. Anthropogenic impact of environmental contamination in coastal zone regions and assessment by means of sediment analysis, macroinvertebrate community structure and use of bioindicators. Conservation of natural resources. Biodiversity.

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## RESEARCH EXPERIENCE

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January 06-Present

Comisión Nacional para el conocimiento y uso de la Biodiversidad (CONABIO). Benthic Macroinvertebrate Diversity for Marine Priority Area 1 (Ensenadense). Identification and databasing software integration (Biotica). Principal Investigator.

April 06

Biopesca. Ensenada, Baja California, México. Tuna mariculture benthic study. Sampling, identification and community analysis of marine invertebrates in Bahía Salsipuedes, Baja California, México.

January 06-Present

San Jose State University Foundation/Moss Landing Marine Laboratories. Introduced Aquatic Species in California coastal waters. Consulting Polychaete taxonomist specialist.

September 05 – February 06

SeaDoc/UC Davis Phase I Marine Vital Signs Monitoring in Baja California 2006. Consultant/Co-author. Ecology of marine invertebrates. Coastal continental platform depths Tijuana to San Quintín Baja California, México.

June 05

Instituto de Investigaciones Oceanológicas (I.I.O.) Universidad Autónoma de Baja California (UABC) Phase II. Sampling and identification of invertebrates in Lake Pátzcuaro and Zirahuén Michoacán, México. Project "Contamination and toxicology." Integration of networks of academic groups UAB, UAM and UNAM.

February 05

Instituto de Investigaciones Oceanológicas (I.I.O.) Universidad Autónoma de Baja California (UABC) Phase I. Sampling of invertebrates in Lake Pátzcuaro and Zirahuén Michoacán, México. Project "Contamination and toxicology." Integration of networks of academic groups UAB, UAM and UNAM.

January 05

Instituto de Investigaciones Oceanológicas (I.I.O.) Universidad Autónoma de Baja California (UABC). Ecological training workshop package (PRIMER v6) for update of multivariate ecological studies. Dr. K.R. Clarke, PML.

July-August 04

Secretaria de Marina. Armada de México. Consultant. Ecology of marine invertebrates. Continental platform of the Gulf of California and coast off Baja California, México.

December 03

Instituto de Investigaciones Oceanológicas (I.I.O.) Universidad Autónoma de Baja California (UABC) Sampling of benthic marine invertebrates (Annelida: Polychaeta). Continental Platform of Baja California. Project "Southern California Coastal Water Research Project (SCBP) 2003".

March 02-August 04

Biopesca. Ensenada, Baja California, México Sampling, identification and community analysis of marine invertebrates (Annelida: Polychaeta). Project: environmental impact of the "Escalera Nautica" harbor pre-construction. Santa Rosalita, Baja California, México.

March 2000-January 01

SCCWRP-Universidad Autónoma de Baja California (UABC) Identification of SCBP Marine Invertebrate Polychaetous Annelids (Phylum Annelida) occurring at shelf depths off the Pacific Coast of México. Project "Southern California Coastal Water Research Project (SCBP) 1998."

January 00-March 00

Benthic Laboratory CICESE. Sampling and identification of benthic polychaetes off Bahía Magdalena, Baja California, México.

July-December 99

Benthic Laboratory CICESE. Taxonomy of Marine Invertebrates, especially Polychaetous annelids (Phylum Annelida) occurring in Bahía de San Quintín, Baja California, México.

February-August 97

Marine Invertebrate Laboratory UABC. Taxonomy of Marine Invertebrates, especially Polychaetous Annelids (Phylum Annelida) occurring in Todos Santos Bay, Baja California, México.

April 97

Population Ecology Laboratory SDSU. Field sampling, Urchin community research in the Angeles Bay, Baja California, México.

May 96-January 97

Benthic Laboratory CICESE. Taxonomy of Marine Invertebrates, especially Polychaetous annelids (Phylum Annelida) occurring in Topolobampo Bay, Sonora, México.

July 95-September 95

Benthic Laboratory CICESE. Field benthic sampling of marine invertebrates occurring in intertidal ranges of San Felipe, Baja California, México.

September 93-June 94

SEMARNAP Environmental Protection Agency (PROFEPA). Industrial inspection and verification of legislative compliance.

August 93-July 94

Coastal Ecology Laboratory. Instituto de Ciencias del Mar y Limnología (I.C.M y L.), UNAM. Taxonomy of Polychaetous annelids (Phylum Annelida) occurring in continental shelf depths of the Gulf of México.

October 92-December 92

Coastal Ecology Laboratory. Instituto de Ciencias del Mar y Limnología (I.C.M y L.), UNAM. Consultant in taxonomy of Marine Invertebrates, especially Polychaetous annelids (Phylum Annelida) occurring in continental shelf depths of Jalisco, México.

May 91

Geography Institute UNAM. Consultant in the taxonomy of Polychaetous annelids (Phylum Annelida) occurring in continental platform of the Gulf of México.

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#### **RESEARCH FUNDING, GRANT SUPPORT, FELLOWSHIPS AWARDED**

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*Biodiversidad de macroinvertebrados béticos de la región marina Tijuana-Ensenada Baja California, México.* Comisión Nacional para el conocimiento y uso de la Biodiversidad (CONABIO). 06/06-12/07. \$23,000. Principal Investigator.

*A Vital Signs Monitoring program for the Baja California Pacific Near Shore marine ecosystem Tijuana to San Quintín.* SeaDoc/UC Davis. 09/05-02/06. \$6,000.

*Structure of the benthic invertebrate communities and its relation with physical-chemical variables of the sediment in the coastal zone of Tijuana-Ensenada, Baja California, México.* CONACyT 02/01-05/05. \$30,600.

*Polychaetous annelids in Bahía Todos Santos, Ensenada Baja California, México.* CONACyT 09/94-11/97. \$ 14,000.

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#### **ACADEMIC OUTREACH, SYNERGISTIC ACTIVITIES AND SERVICE**

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Co-organizer Workshop on Marine Vital signs monitoring in the Tijuana-San Quintín Coastal corridor: Laying a roadmap for cooperative public-private conservation partnerships. March 30-31, 2006. Tijuana, Baja California. México.

Moss Landing Marine Lab Invasive species workshop taxonomic team. Introduced Aquatic Species in California Coastal Waters. January 2005/2006/2007.

Invasive species field participant/led Mexico excursion. Project Report for the Southern California Exotics Expedition 2000. A Rapid Assessment Survey of Exotic Species in Sheltered Coastal Waters. January 2002.

Southern California Bight 1998 Regional Monitoring Program: Benthic Macrofauna workgroup. 2001-2003. Westminster, CA.

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**FIELD EXPERIENCE AND CRUISE PARTICIPATION**

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BIGHT' 03, Project "Ecology of the Southern California Bight implications for sediment quality" (BIGHT). R/V "SUCHIATE" BI 05, Tijuana-Ensenada, Baja California, December 2-7, 2003. Principal Investigator.

Escalera Nautica, Project "Anthropogenic impact study related to the Escalera Nautica" R/V "Alguita", Santa Rosaliita Bay, Baja California, México. July 2001. Led benthic sampling effort.

SIMSUP VIII, Project "Sistemas marinos de surgencia y su relación con los pelágicos menores del Pacífico" (SIMSUP). R/V "El Puma", Costa oeste de la Península de Baja California, October 3-21, 1995. Principal Investigator.

ECOBAC, Project "Estudios de contaminación marina en la frontera norte de Baja California" (ECOBAC). R/V "Francisco de Ulloa", Tijuana-Ensenada, Baja California, April 22-26, 1995. Co-Principal Investigator.

DINAMO-IV, Project "Dinámica oceánica y su relación con el deterioro ambiental en la porción Sur del Golfo de México" (DINAMO). R/V "Justo Sierra", Gulf of México, 2-16 de octubre de 1991. Led benthic sampling effort.

DINAMO-III, Project "Dinámica oceánica y su relación con el deterioro ambiental en la porción Sur del Golfo de México" (DINAMO). R/V "Justo Sierra", Gulf of México, march 3-25, 1991. Led benthic sampling effort.

DINAMO-II, Project "Dinámica oceánica y su relación con el deterioro ambiental en la porción Sur del Golfo de México" (DINAMO). R/V "Justo Sierra". Gulf of México, october 25-November 8, 1990. Led benthic sampling effort.

DINAMO-I, Project "Dinámica oceánica y su relación con el deterioro ambiental en la porción Sur del Golfo de México" (DINAMO). R/V "Justo Sierra". Gulf of México, march 6-23, 1990. Led benthic sampling effort.

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**PROFESSIONAL AFFILIATIONS**

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Southern California Association of Marine Invertebrate Taxonomists (SCAMIT).

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**PRESENTATIONS**

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2004. Polychaete biodiversity and community structure in Bahía Santa Rosaliita, Baja California, México. Presented to the Proceedings of the 8th International Polychaete Conference, held in Madrid, Spain. 4-9 July, 2004.

2004. Structure of the benthic macrofauna in Bahía Santa Rosaliita Baja California, México. Rodríguez-Villanueva, V., R. Martínez-Lara and M. Mondragón-Rojas. Presented to the Southern California Academy of Sciences. California State University Long Beach, CA. May 14-15, 2004.

2002. Comunidades de moluscos béticos de la zona costera Tijuana- Ensenada, Baja California, México. Rodríguez-Villanueva. V., M. Necochea-Zamora and R. Martínez-Lara. Presented to the III Coloquio sobre Oceanografía del Pacífico Oriental. CICESE. Ensenada, Baja California México. September 11-13, 2002.

2002. Polychaetous annelid assemblages associated with sediments near seven shallow wastewater outfalls along the Tijuana-Ensenada coastal corridor in northern Baja California, México. Rodríguez-Villanueva. V., R. Martínez-Lara, and V. Macias-Zamora. Presented to the Southern California Academy of Sciences. Claremont McKenna college. Claremont, California. June 7-8, 2002.

2001. Rodríguez-Villanueva, V. and R. Martínez-Lara. Polychaete community structure (Annelida:Polychaeta) of the northwestern Mexican Pacific coast. Patterns of abundance and distribution. Presented to the Proceedings of the 7th International Polychaete Conference, held in Reykjavick, Iceland. July 2-6, 2001.

1998. Rodríguez-Villanueva, V. and R. Martínez-Lara. Structure and Composition of the Benthic Polychaete Families in Bahía de Todos Santos, Baja California, México. Presented to the Proceedings of the 6th International Polychaete Conference, held in Curitiba, Paraná, Brazil. August 2-7, 1998.

1995. Rodríguez-Villanueva. V. and V. Diaz-Castañeda.V. Polychaete Fauna from San Quintin Bay, Baja California, México. Presented to the XIII Congreso Nacional de Zoología celebrado en Morelia, Michoacán, México. Noviembre 21-24, 1995.

1994. Granados-Barba, A., V. Solís-Weiss, V. Rodríguez-Villanueva, L. Miranda-Vázquez, V. Ochoa-Rivera and P. Hernández-Alcántara. Los onúfidos (Polychaeta: Onuphidae) de la plataforma continental del Golfo de México. Presented to the X International Symposium on Marine Biology, held in Ensenada, Baja California, México. June 13-17, 1994.

1994. Rodríguez Villanueva, V., L. Miranda Vázquez, A. Granados Barba, V. Ochoa Rivera, P. Hernández Alcántara and V. Solís Weiss. The diversity of polychaetes in the continental shelf of the Gulf of Mexico. Presented to The Marine Biological Association "Marine Biodiversity: Causes and consequences", held in York, Reino Unido. Agosto-Septiembre, 1994.

1993. Rodríguez Villanueva, V., L. Miranda Vázquez and V. Solís Weiss. Comparación de la composición específica y distribución de los anelidos poliuetos de las zonas terrigena y carbonatada de la plataforma continental del sur del Golfo de México. XII Congreso Nacional de Zoología celebrado en Monterrey, Nuevo León, México. Diciembre 7-11, 1991.

1992. Solís-Weiss,V., V. Rodríguez-Villanueva, A. Granados-Barba, V. Ochoa-Rivera, L. Miranda-Vázquez, and P. Hernández-Alcántara. The annelid polychaete populations of the order Eunicida from the Southern Gulf of Mexico. Fourth International Polychaetes Conference. Université Catholique d'Angers, France. July 27-1 August 1992.

1991. Rodríguez Villanueva, V., L. Miranda Vázquez and V. Solís Weiss. Abundancia, diversidad y distribución geografica de los anelidos poliuetos de la plataforma continental interna de Tamaulipas, Veracruz, Tabasco y Campeche. XI Congreso Nacional de Zoología celebrado en Mérida Yucatan, México. Octubre 28-31 1991.

1990. Miranda-Vázquez, L. Rodríguez-Villanueva and V. Ochoa-Rivera. Estudio de los anélidos poliuetos recolectados en áreas de plataformas petroleras durante las campañas oceanográficas IMCA III y IMCA IV. Tercer encuentro academico de estudiantes de Ciencias del Mar y Limnología. UNAM diciembre 3-7 1990.

2006. A Vital Signs Monitoring program for the Baja California Pacific Near Shore marine ecosystem Tijuana to San Quintín. Gary Davis, Ernesto Franco, Kirsten Gilardi, Vinicio Macías, Verónica Rodríguez and Pamela Yochem.

1990. Sánchez, A., Raz-Guzmán, A., Solís-Weiss, V., Hernández-Alcántara, P. Granados Barba, A., V. Rodríguez-Villanueva, L. Miranda-Vázquez, V. Ochoa-Rivera & et al., Anélidos Poliquetos de la Carta Biológica Marina I, Oceanografía, Sección Naturaleza, Vol. II. In: Atlas Nacional de México (Instituto de Geografía, UNAM).

1997. Rodríguez-Villanueva. V. Estudio de la comunidad de Anélidos Poliquetos de la Bahía de Todos Santos, Ensenada, B.C. Tesis Maestría, CICESE., Ensenada, Baja California México. 140 p.

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## **PUBLICATIONS**

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Rodríguez-Villanueva. V. and R. Martínez-Lara. (In Prep.). Polychaete biodiversity and community structure in Bahía Santa Rosaliita, Baja California, México. *Scientia Marina*.

Rodríguez-Villanueva. V., M. Mondragón-Rojas and R. Martínez-Lara. (In Prep.). Structure of the benthic macrofauna in Bahía Santa Rosaliita Baja California, México.

Rodríguez-Villanueva. V., R. Martínez-Lara, and V. Macias-Zamora. (In Prep.). Polychaetous annelid assemblages associated with sediments near seven shallow wastewater outfalls along the Tijuana-Ensenada costal corridor in northern Baja California, Mexico.

Rodríguez-Villanueva. V., R. Martínez-Lara, and V. Macias. 2003. Polychaete community structure of the northwestern coast of Mexico: Patterns of abundance and distribution. *Hydrobiologia* 496. 385-399.

Rodríguez-Villanueva. V., R. Martínez-Lara, and V. Diaz- Castañeda. 2000. Structure and Composition of the Benthic Polychaete Families in Bahía Todos Santos, Baja California, México. In: Reish, D. J. and P. Lana eds. Proceedings of the 6th International Polychaete Conference. *Bull. Mar. Sci.* 67(1):113-126.

Diaz-Castañeda. V. and V. Rodríguez-Villanueva. 1998. Polychaete Fauna from San Quintin Bay, Baja California, México. *Bull. Southern California Acad. Sci.* 97(1): 9-32.

Solis-Weiss. V., A. Granados-Barba, V. Rodriguez-Villanueva, L. Miranda-Vazquez, A., V. Ochoa-Rivera, and P. Hernandez-Alcantara. 1995. The Lumbrineridae of the continental shelf in Mexican portion of the Gulf of Mexico. *Mitteilungen aus dem Hamburischen Zoologischen Museum und Institut.* Vol:92. P. 61-75.

Solis-Weiss. V., V. Rodríguez-Villanueva, L. Miranda-Vazquez, A. Granados-Barba, V. Ochoa-Rivera, and P. Hernandez-Alcantara. 1994. The Annelid Polychaete Populations of the Order Eunicida from the Southern Gulf of México. In: Dauvin, J. C., L. Laubier and D. J. Reish (eds). *Memories du Museum National d' Histoire Naturelle*, 162: 559-566.