

EDWARD A. MARTINEZ

Department of Natural Resource Management

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Professional Preparation:

Ph.D. 2000, Environmental and Natural Resource Sciences, Washington State University, Pullman Washington, Dissertation: Morphological Abnormalities and Developmental Responses in Chironomus Tentans Exposed to Zinc and Lead

M.S. 1998, Environmental Science, Washington State University, Pullman Washington, Masters: Evaluation of Mouthpart Deformities and Heavy Metals in Chironomids from the Heavy Metal Contaminated Coeur D' Alene River

B.S. 1994, Environmental Science, New Mexico Highlands University Las Vegas New Mexico

Appointments

Associate Professor, Department of Natural Resources Management, New Mexico Highlands University (8/05-Present)

Assistant Professor, Department of Environmental Studies, California. State Univ. Sacramento (2002-2005)

Assistant. Professor Adjunct, Environmental Science & Regional Planning, Washington State University (2001-2002)

Postdoc Associate, Natural Resource Sciences, Washington State University (2001-2002) Conducted research on the induction of abnormalities in chironomid larvae exposed to heavy metals

Postdoc Associate, Veterinary Clinical Sciences, Washington State University (2000-2001) Conducted research on the potential pathways of salmonella in freshwater using chironomid larvae

Publications

Martinez E.A., E. Ratzlaff. *In Review*. *Comparing Effects of a STEM-Student Support Center and Supplemental Instruction on Academic Success and Retention of STEM Students at a Four-Year, Open-Enrollment Hispanic-Serving Institution*.

Trujillo J., Medina, S., D. Williams, M. Pilotti, **E.A. Martinez**. 2012. *Impact of Micro-Temperature Changes on Dissolved Organic Carbon in High Mountain Streams*. New Mexico Journal of Science, 46:183-201.

Medina, S. , J. Trujillo, D. Williams, M. Pilotti, **E.A. Martinez**. 2012. *Water Quality Dynamics of Two Headwater Streams as Indicated by Variations in Nutrient and Other Solute Concentrations, Physiochemical Parameters, and Discharge*. New Mexico Journal of Science, 46:203-216.

Pilotti, M., **E. Martinez**, T. Broderick, S. Caballero, L. LaGrange. 2012. *Reading Acceleration Program: The Effect of Concentrated Practice on Reading Skills*. Journal of Hispanic Higher Education. <http://jhh.sagepub.com/content/early/2012/02/08/1538192712443132>

Van Horn, D.J., C.S. White, **E.A. Martinez**, C.H., J.P. Merrill, R.R. Parmenter, C.N. Dahm. In Press. *The Effects of Watershed Characteristics and Ungulate Grazing on Montane Grassland Streams and Riparian Areas*. Rangeland Ecology and Management

Martinez, E.A., J. Lindline, M.S. Petronis, M. Pilotti. *Effectiveness of a Science Agricultural Summer Experience (SASE) in Recruiting Students to Natural Resources Management*. 2011, Journal of Science Education and Technology.

Martinez, E.A. and C. Shu-Nyamboli, 2011. *Determination of selected heavy metal concentrations and distribution in a southwestern stream using macrophytes*. Ecotoxicology and Environmental Safety 74:1504-1511.

Martinez, E.A., Wold, L, B. Moore, J. Schaumlöffel, and N. Dasgupta. 2006. *Growth and morphological responses in Chironomus tentans to arsenic exposure*. Archives of Environmental Contamination and Toxicology 51(4):529-536.

Martinez, E.A., B. Moore, J. Schaumlöffel, and N. Dasgupta. 2004. *Teratogenic vs. mutagenic*

abnormalities in chironomid larvae exposed to Zn and Pb. Archives Environmental Contamination Toxicology 47(2):193-198.

Martinez, E.A., B. Moore, J. Schaumloffel, and N. Dasgupta. 2004. *Effects of exposure to a combination of zinc and lead spiked sediments on mouthpart development and growth in Chironomus tentans (Diptera: Chironomidae)*. Environmental Toxicology and Chemistry. 23(3):662-667.

Martinez, E.A., B. Moore, J. Gay, and D. Rice. 2003. *Long term survival of Salmonella enterica in freshwater and sediments and transmission by Chironomus tentans (Chironomidae: Diptera)*. Applied and Environmental Microbiology. 69(8):4556-4560.

Martinez, E.A., B. Moore, J. Schaumloffel, and N. Dasgupta. 2003. *Morphological abnormalities in Chironomus tentans exposed to cadmium and copper spiked sediments*. Ecotoxicology and Environmental Safety. 55:204-212.

Synergistic Activities

Project Director, USDA Hispanic Serving Institutions Education Grant, 2014-2017

Co-Project Director, USDA Hispanic Serving Institutions Education Grant, 2014-2018

Project Director, Kellogg Foundation STEM Education Grant, 2012-2014

Co-Project Director, NSF S-STEM, 2012-2017

Project Firector, USDA Hispanic Serving Institutions Education Grant, 2010-2013

Co-Project Director, USDA Hispanic Serving Institutions Education Grant, 2009-2011

Co-Project Director, NSF-EPSCoR Grant, 2008-2013

Project Director, US Department of Education CCRAA Grant, 2008-2010

Project Director, NSF-MRI Grant, 2007-2010

Project Director, USDA Hispanic Serving Institutions Education Grant, 2006-2010.

Active Research Projects

- *Fire and Water Research Post-Las Conchas Fire, Valles Caldera National Preserve, NM.*
- *A Bioassessment of the Sante Fe River and Mora River at Wind River Ranch, NM.*
- *Seasonal and Diurnal Nutrient Variations of the streams in the Valles Caldera Preserve, NM.*
- *Distribution and Fate of Geothermal Solutes in Valles Caldera Streams and Biota.*
- *Effects of Copper Sulfate Treatment on Benthic Macro-invertebrates.*

MA Students

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| • Bildad Eta Eyong (completed) | Jason Martinez (completed) |
| • Amina Sena (completed) | Julie Trujillo (completed) |
| • Bruceline Che Fru (completed) | Sebastian Medina |
| • Che Nyamboli (completed) | Jennifer Runnels |
| • Brenda Fonju (completed) | Lorraine Garcia |
| • Daryl Williams | Anita Lavadie |

Collaborators

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| • Nairangana Dasgupta, Washington State University Mexico | Dave Van Horn University of New |
| • Mike Meyer NMHU Department of Natural Sciences Natural Resources Mgmt. | Jennifer Lindline NMHU Dept. of |
| • Brian Miller, Wind River Ranch Natural Sciences | Mary Shaw, NMHU Department of |
| • Bob Parmenter Valles Caldera National Preserve | Mike Pullin, NM Tech |

Graduate Advisors

- Barry Moore, Washington State University
- John Schaumloffel, State University New York, Oneonta
- Royston Filby, Washington State University, Emeritus
- William Funk, Washington State University, Emeritus