

**ADRIANA C. BEJARANO**  
Senior Aquatic Eco-Toxicologist

Dr. Bejarano is an environmental scientist with broad experience in applied ecology and aquatic ecotoxicology. Prior to joining Research Planning (RPI) her research centered on evaluating the ecological and toxicological effects of land-based pollutants on marine and estuarine invertebrates. Through her research, Dr. Bejarano developed skills in applied ecology and population modeling, ecological risk assessments of contaminated sediments and complex contaminant mixtures, and acute and chronic toxicity testing. Her recent efforts focus on identifying opportunities for GIS-based risk analyses linked to environmental and coastal degradation, and on integrating ecological risk assessment into natural resources damage assessment efforts. Her work at RPI has consisted of performing comprehensive literature reviews on the ecological and toxicological effects of oil on fish and fish communities in sub-arctic lotic systems, and on characterizing the risks to benthic communities from complex PAH mixtures in habitats from the Persian Gulf impacted by the lingering oil from the Gulf War.

**EDUCATION**

2004. PhD, **Environmental Health Sciences- Aquatic Toxicology**, University of South Carolina, Columbia, SC, USA

2000. MSc, **Marine Science**, University of South Carolina, Columbia, SC, USA

1997. BSc, **Marine Biology**, Universidad del Valle, Cali, Colombia

**RESEARCH INTERESTS**

Ecological Risk Assessment, Aquatic Toxicology, Marine and Estuarine Ecology and Conservation, Environmental Statistics, Population and Ecological Modeling, Environmental Chemistry

**ACADEMIC AFFILIATIONS**

**2007- present Adjunct Faculty**, Department of Environmental Health Sciences, University of South Carolina, Columbia, SC, USA

**PROFESSIONAL EXPERIENCE**

2008-Present. Environmental Toxicologist and Marine Ecologist, Research Planning, Inc., Columbia, SC, USA

2005- 2007. Ecological Risk Analyst- Postdoctoral Researcher, NOAA/NOS, Charleston, SC, USA

2005. Visiting Scientist, Department of Applied Environmental Science (ITM), Stockholm University, Stockholm, Sweden

2004-2005. Research Associate- Aquatic Toxicologist, University of South Carolina, Columbia, SC, USA

2000-2004. Graduate Research Assistant, University of South Carolina, Columbia, SC, USA

1998-2000. Graduate Research Assistant, University of South Carolina, Columbia, SC, USA

1996-1997. Data Analyst, Field and Laboratory Research Assistant, Universidad del Valle, Cali, Colombia; University of South Carolina Columbia, SC, USA; Instituto Colombiano Para el Desarrollo de la Ciencia y la Tecnologia (COLCIENCIAS), Colombia

## **PUBLICATIONS (Selected)**

Dávalos LM, **AC Bejarano**, M Hall, HL Correa, A Corthals, OJ Espejo. 2011. Forests and drugs: coca-driven deforestation in global biodiversity hotspots. *Environmental Science and Technology*. 45 (4): 1219–1227

**Bejarano AC** and J Michel. 2010. Large-scale risk assessment of polycyclic aromatic hydrocarbons in shoreline sediments from Saudi Arabia: Environmental legacy after twelve years of the Gulf War oil spill. *Environmental Pollution*. 158 (5): 1561-1569.

Dávalos. LM, **AC Bejarano**, and HL Correa. 2009. Disabusing cocaine: pervasive myths and enduring realities of a globalized commodity. *International Journal of Drug Policy*. 20(5):381-386.

**Bejarano AC**, FM Gulland, J St Leger, M Hunter, LH Schwacke, TK Rowles and FM VanDolah. 2008. Temporal and spatial signature of the biotoxin domoic acid in California sea lion (*Zalophus californianus*) stranding records. *Marine Mammal Science* 24(4): 899-912.

**Bejarano AC**, LH Schwacke, FM Gulland, TK Rowles and FM VanDolah. 2008. Production and toxicity of the marine biotoxin domoic acid and its effects on wildlife: A review. *Human and Ecological Risk Assessment*. 14(3): 544- 567.

Dávalos LM and **AC Bejarano**. 2008. Conservation in conflict: Illegal drugs versus habitat in the Americas. *In: State of the Wild 2008-2009: A global portrait of wildlife, windlands, and oceans*. pp 218-225. Washington, D.C., Island Press.

**Bejarano AC**, FM VanDolah, FM Gulland and LH Schwacke. 2007. Exposure assessment of the biotoxin domoic acid in California sea lions: application of a bioenergetic model. *Marine Ecology Progress Series*. 345:293-304

**Bejarano AC**, GT Chandler, L He, TL Cary and J Ferry. 2006. Risk assessment of the NIST petroleum crude oil standard water accommodated fractions (WAFs) on a meiobenthic copepod: Further application of a copepod-based full life-cycle bioassay. *Environmental Toxicology and Chemistry*. 25 (7): 1953-1960.

**Bejarano AC**, GT Chandler, L He and BC Coull. 2006. Individual to population effects of South Louisiana crude oil water hydrocarbon accommodated fraction (WAFs) on a marine meiobenthic copepod. *Journal of Experimental Marine Biology and Ecology* 332: 49-59.

**Bejarano AC**, PL Pennington, ME DeLorenzo and GT, Chandler. 2005. Atrazine effects on the meiobenthic assemblage of a modular estuarine mesocosm. *Marine Pollution Bulletin* 50 (11): 1398-1404

Chandler GT, TL Cary, **AC Bejarano**, J Pender, and JL, Ferry. 2004. Population consequences of fipronil and degradates to copepods at environmental concentrations: An integration of lifecycle testing with Leslie-matrix population modeling. *Environmental Science and Technology*. 38 (23): 6407-6414.

**Bejarano AC**, Maruya KA, Chandler GT. 2004. Toxicity assessment of sediments associated with various land-uses in coastal South Carolina, USA, using a meiobenthic copepod bioassay *Marine Pollution Bulletin*. 49 (1-2): 23-32.

#### **PUBLISHED ABSTRACTS (Selected)**

**Bejarano et al.**, 2010. Chemical Aquatic Fate and Effects (CAFÉ): a database for rapid response to chemical spills in aquatic environments. SETAC. Portland, OR, USA. ([Oral](#))

Michel J, **Bejarano AC**. 2010. The Deepwater Horizon Oil Spill: Shoreline Cleanup Assessment Technique as a Key Data Source in Habitat Equivalency Analysis. SETAC. New Orleans, LA, USA. ([Oral](#))

LM Dávalos, HL Correa and **AC Bejarano**. 2008. Fighting the Wrong War: Unmet Basic Needs and Coca Cultivation in Colombia. The University of Chicago Program on the Global Environment -The Social Life of Forests: New Frameworks for Studying Change. Chicago, IL, USA ([Oral](#))

**Bejarano et al.**, 2007. A GIS-based risk assessment of illicit crops and their threats to amphibian biodiversity in Colombia. SETAC. Milwaukee, WI, USA. ([Oral](#))

**Bejarano et al.**, 2007. The marine biotoxin domoic acid and its impacts on the California sea lion population: optimization of a population model by evaluating nine years of stranding records. SETAC. Milwaukee, WI, USA. ([Poster](#))

**Bejarano et al.**, 2006. Evaluating the effects of domoic acid in California sea lions through the integration of an exposure assessment with an individual-based population model. SETAC. Montréal, Québec, Canada. ([Oral](#)).

**Bejarano et al.**, 2005. OECD-sanctioned evaluation of meiobenthic copepods as Tier II lifecycle screening tools for putative endocrine disruptive chemicals. SETAC. Baltimore, MD, USA. ([Interactive Platform](#))

**Bejarano AC**, GT Chandler. 2005. Utility of a NIST crude oil Water Accommodated Fraction (WAF) as a benchmark for copepod reproductive and population-level toxicity. SETAC. Baltimore, MD, USA. ([Poster](#))

**Bejarano AC** and GT Chandler. 2003. Photo-induced toxicity of PAH-contaminated sediments to the copepod *Amphiascus tenuiremis*. SETAC. Austin, TX, USA. ([Poster](#))

**Bejarano et al.**, 2002. Reproductive and hormonal effects of urban contaminants on laboratory, mesocosm and field meiobenthic copepods. SETAC. Salt Lake City, UT, USA. ([Invited Talk](#))

## **OTHER PUBLICATIONS**

**Bejarano AC.** 2004. Toxicological evaluation of urban-related contaminants in estuarine ecosystems : 1. Effects of contaminants on the development and reproduction of the estuarine copepod *Amphiascus tenuiremis*; and 2. the role of sediment constituents on pesticide bioavailability to the estuarine bivalve *Mercenaria mercenaria* . PhD Dissertation, Department of Environmental Health Sciences, University of South Carolina. 144pp. (Director of Dissertation: G. Thomas Chandler, PhD).

**Bejarano AC.** 2000. Uptake and fate of Trichloroethylene (TCE) in *Spartina alterniflora* Loisel. Masters Thesis, Marine Science Program, University of South Carolina. 64 pp. (Director of Thesis: James T. Morris, PhD).

## **PROFESIONAL SOCIETIES**

Society of Environmental Toxicology and Chemistry

## **PROFESSIONAL SERVICES**

Reviewer: Aquatic Toxicology, Journal of Hazardous Materials, Ecotoxicology and Environmental Safety, Ciencias Marinas.