

# Renato Molina

Assistant Professor in Environmental and Resource Economics  
Rosenstiel School & Department of Economics · University of Miami

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## EMPLOYMENT

<b>Rosenstiel School of Marine and Atmospheric Science, Department of Economics, University of Miami</b> <i>Assistant Professor in Environmental and Resource Economics</i>	August 2018 - Present Miami, FL, USA
<b>Sustainable Fisheries Group, UC Santa Barbara</b> <i>Project Researcher</i>	October 2013 - June 2018 Santa Barbara, CA, USA
<b>Facultad de Recursos Naturales, PUCV</b> <i>Lecturer</i>	March 2010 - August 2016 Valparaíso, Chile
<b>Bren School, UC Santa Barbara</b> <i>Graduate Research Assistant</i>	November 2012 - August 2013 Santa Barbara, CA, USA
<b>School of Marine Science, PUCV</b> <i>Research Assistant</i>	July 2007 - December 2009 Valparaíso, Chile
<b>Private Consultant</b> <i>Freelance Industrial Operations Modeler</i>	July 2007 - December 2009 Valparaíso, Chile

## EDUCATION

<b>University of California, Santa Barbara</b> Doctor of Philosophy in Economics	2018
<b>University of California, Santa Barbara</b> Master of Arts in Economics	2015
<b>University of California, Santa Barbara</b> Master of Environmental Science and Management	2013
<b>Pontificia Universidad Católica de Valparaíso</b> Professional Degree of Aquaculture Engineering	2010
<b>Pontificia Universidad Católica de Valparaíso</b> Bachelor of Sciences in Fisheries Science	2009

## TEACHING

<b>Applied Environmental Economics</b> Instructor - <i>Graduate</i>	2019 University of Miami, USA
<b>Economics of Fisheries Management</b> Instructor - <i>Graduate and Government Officials</i>	2017 - 2018 UC Santa Barbara, USA

<b>Economics of Environmental Management</b> Teaching Asisstant - <i>Graduate</i>	2017 UC Santa Barbara, USA
<b>Intermediate Macroeconomic Theory</b> Teaching Asisstant - <i>Undegraduate</i>	2016 UC Santa Barbara, USA
<b>Operations Research</b> Instructor - <i>Undegraduate</i>	2010 - 2011 PUCV, Chile
<b>Production and Operations Management</b> Instructor - <i>Undegraduate</i>	2010 - 2011 PUCV, Chile
<b>Operations Research</b> Teaching Asisstant - <i>Undegraduate</i>	2007 - 2009 PUCV, Chile

## RESEARCH

### Working papers

Why Natural Disasters are a Disaster in Common Property Resources

Transboundary Marine Protected Areas (with C. Costello)

The Economic Impact of Modern Piracy on Global Shipping (with G. McDonald)

Sharing is not Caring: The case of transboundary fisheries (with O. Liu)

### Peer-reviewed

Palacios-Abrantes, J., Herrera-Correal, J., Rodriguez, S., Brunkow, J., & **Molina, R.** 2018. Evaluating the Bio-Economic performance of a Callo de hacha (*Atrina Maura*, *Atrina tuberculosa* & *Pinna rugosa*) fishery restoration plan of La Paz Cove, Mexico. PLOS ONE 13(12): e0209431.

Liu, O., **Molina, R.**, Wilson, M., & Halpern, B. 2018. Global opportunities for mariculture development to promote human nutrition. PeerJ 6:e4733; DOI 10.7717/peerj.4733.

**Molina, R.**, Cerda, R., González, E., & Hurtado, F. 2012. Simulation model of the scallop (*Argopecten purpuratus*) farming in northern Chile: some applications in the decision making process. Latin American Journal of Aquatic Resources, 40(3): 679-693.

### Book chapters

Norambuena, R., González, E., **Molina, R.** & Gomez, A. 2017. Impacts of Climate Change on Marine Fisheries and Aquaculture in Chile (Chapter 10 - Aquaculture). In: Phillips, B. & Pérez, M. (eds) The Impacts of Climate Change on Fisheries and Aquaculture. John Wiley & Sons, Inc., Hoboken, NJ, USA.

González, E., Norambuena, R., **Molina, R.** & Thomas, F. 2013. Evaluación de Potenciales Impactos y Reducción de la Vulnerabilidad de la Acuicultura al Cambio Climático en Chile [Potential Impacts and Reduction of the Aquaculture Vulnerability to Climate Change in Chile]. In: Cambio climático, pesca y acuicultura en América Latina: Potenciales impactos y desafíos para la

adaptación. Taller FAO/Centro de investigación Oceanográfica en el Pacífico Sur Oriental (CO-PAS), Universidad de Concepción, Concepción, Chile. FAO Actas de Pesca y Acuicultura. No. 29. Roma, FAO, 275-335p.

## **Presentations**

**Molina, R.** 2017. Common Property Resources, Property Rights and Natural Disasters. NAAFE Forum 2017: The Economics of Aquaculture, Fisheries and Seafood Trade: Managing the Socio-Ecology of Sustainable Marine Resource Use. North American Association of Fisheries Economists. La Paz, Mexico.

**Molina, R.** & Costello, C. 2017. Transboundary Marine Protected Areas. NAAFE Forum 2017: The Economics of Aquaculture, Fisheries and Seafood Trade: Managing the Socio-Ecology of Sustainable Marine Resource Use. North American Association of Fisheries Economists. La Paz, Mexico.

**Molina, R.** 2015. Gestión de Pesquerías de Pequeña Escala a Través de Concesiones Geográficas [Management of Small Scale Fisheries through Territorial Use Rights]. Taller Internacional "Experiencia Global en el Fomento y Gobernabilidad de Sistemas de Innovación en Pesca y Acuicultura" [International workshop on "Global Experience in the Promotion and Governance of Innovation Systems in Fisheries and Aquaculture"]. Peruvian Government and The World Bank. Lima, Peru.

**Molina, R.,** Costello, C., Gaines, S. & Lester S. 2014. Implications of Different Spatial Management Strategies when Establishing Territorial User Fishing Rights and Marine Protected Areas for Inter-connected Marine Systems. The Seventeenth International Conference of the International Institute of Fisheries Economics & Trade (IIFET). Brisbane, Australia.

**Molina, R.,** Costello, C., Gaines, S. & Lester S. 2014. Potential Benefits of a Transboundary Marine Protected Area under no Cooperation between Countries. The Seventeenth International Conference of the International Institute of Fisheries Economics & Trade (IIFET). Brisbane, Australia.

**Molina, R.,** Cerda, R., González, E. & Hurtado, F. 2010. Simulation Models as a decision making tool in aquaculture: the case of scallop farming in northern Chile. 15 pages. In: Proceedings of the International Conference: Environment and Resources of the South Pacific of the Pontificia Universidad Católica de Valparaíso, November 22-26, 2010, Viña del Mar, Chile. Special Issue of the Latin American Journal of Aquatic Research.

Cerda, R., González, E. & **Molina, R.,** 2010. Bioeconomic Dynamic Modeling of the Chilean Southern Groundfish Fishery. 10 pages. In: Proceedings of the Fifteenth Biennial Conference of the International Institute of Fisheries Economics & Trade, July 13-16, 2010, Montpellier, France: Economics of Fish Resources and Aquatic Ecosystems: Balancing Uses, Balancing Costs. Compiled by Ann L. Shriver. International Institute of Fisheries Economics & Trade, Corvallis, Oregon, USA, 2008. CD ROM. ISBN 0-9763432-6-6.

## **AWARDS**

### **White Family Fellowship**

*University of California, Santa Barbara*

Recognized for outstanding academic achievement in the Department of Economics.

2017

- Lindau Nobel Laureate Meetings Fellowship** 2017  
*Foundation Lindau Nobel Laureate Meetings*  
 Nominated and selected to attend the 6th Lindau Meeting on Economic Sciences at Lindau, Germany.
- Honorable Mention** 2017  
*North American Association of Fisheries Economists*  
 Runner-up for Best Student Paper in the 2017 NAAFE forum held in La Paz, Mexico.
- Ronald Coase Fellowship** 2017  
*Ronald Coase Institute*  
 Received financial support to attend to the Ronald Coase Workshop on institutional analysis in Xiamen, China.
- Graduate Student Fellowship** 2016  
*Property and Environment Research Centre*  
 Received financial support to conduct research on the performance of property rights for common pool resources under natural disasters.
- H. William Kuni Bren Fellowship** 2016  
*University of California, Santa Barbara*  
 Received financial support to conduct interdisciplinary research on the future development of aquaculture when contrasted with environmental, economic and human health guidelines.
- Becas Chile** 2014  
*Chilean Government*  
 Received full funding for a four-year Ph.D. in Economics program.
- Latin American Fisheries Fellowship** 2011  
*University of California, Santa Barbara / Walton Foundation*  
 Received full-funding for a two-year Master in Environmental Science and Management program.
- Becas Chile** 2011  
*Chilean Government*  
 Received supplemental funding for a two-year Master in Environmental Science and Management program.
- Best Graduate** 2010  
*Pontificia Universidad Católica de Valparaíso*  
 Recognized for the best academic performance of the 2010 Aquaculture Engineering graduation class.
- APROPECH Best Thesis Award** 2010  
*Pontificia Universidad Católica de Valparaíso*  
 Recognized for the best thesis project of the 2010 Aquaculture Engineering graduation class.
- Best Academic Performance** 2009  
*Pontificia Universidad Católica de Valparaíso*  
 Ranked 1st in academic performance for the overall 2009 Aquaculture Engineering class.

## **Grants**

University of Miami, Florida - USA, 2018. Next Generation of Coastal Structures: Incorporating Ecology, Engineering, Economics, and Aesthetic for a Changing Ocean.

*(\$75,000 - Co-PI)*

National Oceanographic and Atmospheric Administration, Florida - USA, 2018. A Web-based Survey to Estimate the Economic Value of Improved Hurricane Forecasts.

*(\$400,000 - Co-PI)*

The Nature Conservancy, Mexico - Peru, 2017. Technical Training in the Economics of Fisheries Management for Decision Makers

*(\$47,000 - PI)*

The Nature Conservancy, Peru 2017 Technical Training in the Economics of Fisheries Management for Decision Makers.

*(\$35,000 - PI)*

The Nature Conservancy, Peru, 2016. Improving the Management of Peru's Anchoveta Fishery: Understanding the Socio-Economic Impacts of Management Strategies.

*(\$55,000 - Co-PI)*

Undersecretariat for Fisheries and Aquaculture, Chile, 2009. Methodology for the Calculation of User Fees in the Chilean Territorial User Fishery Rights System (TURF) for Benthic Fisheries.

*(\$50,000 - Co-PI)*

Asia-Pacific Economic Cooperation, Chile, 2009. Development of an APEC Strategy on Sustainable Aquaculture.

*(\$30,000 - Co-PI)*

Fund for Fisheries Research, Chile, 2008. Technical basis for the Fisheries Management Plan in the Southern Chilean Groundfish Fishery.

*(\$200,000 - Co-PI)*

## **SKILLS & INTERESTS**

### **Languages**

Spanish (native) and English (fluent).

### **Skills**

Advanced Computer Programming, Systems Thinking, Operations Research.

### **Research Interests**

Environmental and Resource Economics, Dynamic Optimization, Game Theory and Political Economy.

### **Miscellaneous Interests**

Music, Photography & Literature.