

# RENATO E. MOLINA

2400 Bren Hall, UC Santa Barbara ◊ Santa Barbara, CA 93106

+1 ·(805) · 883 · 8342 ◊ renatomolina@ucsb.edu

## EDUCATION

---

**University of California, Santa Barbara** *Currently enrolled*  
Doctor of Philosophy in Economics (Candidate)  
*Department of Economics*

**University of California, Santa Barbara** *2015*  
Master of Arts in Economics  
*Department of Economics*

**University of California, Santa Barbara** *2013*  
Master in Environmental Science & Management  
Economics and Politics of the Environment specialization  
*Bren School of Environmental Science & Management*

**Pontificia Universidad Católica de Valparaíso** *2010*  
Professional Degree of Aquaculture Engineering  
*School of Marine Science*

**Pontificia Universidad Católica de Valparaíso** *2009*  
Bachelor of Sciences in Fisheries Science  
*School of Marine Science*

## PROFESSIONAL RESEARCH AND WORK EXPERIENCE

---

**Sustainable Fisheries Group, UC Santa Barbara** October 2013 - to date  
*Project Researcher* *Santa Barbara, CA, USA*

- Conducted theoretical and applied bio-economic modeling of fisheries institutions.
- Conducted policy analysis of fisheries institutions in Latin America.

**Facultad de Recursos Naturales, PUCV** March 2010 - August 2016  
*Assistant Instructor and Researcher* *Valparaíso, Chile*

- Assisted with instruction and research on Resource Economics applied to fisheries and aquaculture.
- Participated in consulting for Chilean government agencies, international organizations and NGOs.

**Bren School, UC Santa Barbara** November 2012 - August 2013  
*Graduate Research Assistant* *Santa Barbara, CA, USA*

- Conducted spatial bioeconomic modeling of transboundary fisheries.

## PROFESSIONAL RESEARCH AND WORK EXPERIENCE (*CONTINUED*)

---

### **School of Marine Science, PUCV**

*Teaching and Research Assistant*

July 2007 - December 2009

*Valparaíso, Chile*

- Assisted in teaching courses related to Industrial Engineering and Operations Research.
- Aided research on Economics and Management of fisheries and aquaculture in Chile.

### **Private Consultant**

*Freelance Industrial Operations Modeler*

July 2007 - December 2009

*Valparaíso, Chile*

- Developed several optimization models for private seafood processing plants.
- Designed and optimized transportation models private aquaculture logistics.
- Evaluated and optimized port distribution models for private fishing operations.

## TEACHING EXPERIENCE

---

### **Economics of Fisheries Management**

*Instructor - Graduate*

January 2017 - February 2017

*UC Santa Barbara, USA*

### **Intermediate Macroeconomic Theory**

*Teaching Assistant - Undergraduate*

October 2016 - December 2016

*UC Santa Barbara, USA*

### **Operations Research**

*Instructor - Undergraduate*

March 2010 - December 2011

*PUCV, Chile*

### **Production and Operations Management**

*Instructor - Undergraduate*

March 2010 - December 2011

*PUCV, Chile*

### **Operations Research**

*Teaching Assistant - Undergraduate*

March 2007 - December 2009

*PUCV, Chile*

## RESEARCH & PRESENTATIONS

---

### Working papers

Common property resources, property rights and natural disasters.

Transboundary Marine Protected Areas (with Costello, C.).

### Peer-reviewed

Palacios-Abrantes, J., Herrera-Correal, J., Rodriguez, S., Brunkow, J., & **Molina, R.**, 2017. *Evaluating the Bio-Economic performance of a Callo de hacha (Atrina Maura, Atrina tuberculosa & Pinna rugosa) fishery restoration plan of La Paz Cove, Mexico*. Latin American Journal of Aquatic Resources. [Submitted]

**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.

## RESEARCH & PRESENTATIONS (CONTINUED)

---

### 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 (COPAS), Universidad de Concepción, Concepción, Chile. FAO Actas de Pesca y Acuicultura. No. 29. Roma, FAO, 275-335p.

### Presentations

**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.

## FELLOWSHIPS AND RECOGNITIONS

---

### **Ronald Coase Fellowship**

2017

*Ronald Coase Institute*

Received financial support to attend to the Ronald Coase Workshop on institutional analysis in Xiamen, China.

## FELLOWSHIPS AND RECOGNITIONS (*CONTINUED*)

---

### **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 1<sup>st</sup> in academic performance for the overall 2009 Aquaculture Engineering class.

---

## INTERNSHIPS AND VISITATIONS

### **UNIVALI**

*Visiting Researcher*

June 2012 - August 2012

*Itajaí, Brazil*

- Economic analysis and modeling of fisheries in southern Brazil.

### **Acuasesorías**

*Student Intern*

January 2009 - February 2009

*Viña del Mar, Chile*

- Analyzed production, exports and potential markets for Chilean and international aquaculture.

## INTERNSHIPS AND VISITATIONS ( *CONTINUED* )

---

**Marine Harvest Co.**  
*Student Intern*

January 2008 - February 2008  
*Puerto Montt, Chile*

- Programmed and implemented a data analysis and management software tool in MS Access.
- Audited production centers in the region for the HACCP program of the company.
- Trained employees at production centers for the HACCP program of the company.

## GRANTS

---

**DSTP Mining Consortium**

2014

*Valuation of the Marine Ecosystems in the central regions of Chile*

- Estimated the total economic value of the marine ecosystems in the 4<sup>th</sup> and 5<sup>th</sup> regions of Chile (*in progress*).

**FAO**

2011

*Assessment of the Potential Impacts and Reduction of the Aquaculture Vulnerability to Climate Change in Chile*

- Identified the possible impacts from different scenarios of climate change in the aquaculture sector in Chile.

**FAO**

2010

*Chilean Aquaculture Big Numbers with Emphasis on Small Scale Producers*

- Characterized the small scale aquaculture sector in Chile through statistical analysis of economic and social indexes.

**SUBPESCA**

2009

*Methodology for the Calculation of License Fees in the Chilean Territorial User Fishery Rights System (TURF) for Benthic Fisheries*

- Developed an optimization model that sustainably maximizes the benefit from the multi-species spatial TURF regime for artisan fishermen in Chile.

**FIP**

2009

*Business & Management Models in Small Scale Aquaculture in Chile*

- Surveyed and analyzed production, social and economic data from small aquaculture producers in Chile.

**FIP**

2008

*Technical basis for the Fisheries Management Plan in the Southern Chilean Groundfish Fishery*

- Developed a multi-fleet and multi-species bioeconomic simulation model to evaluate the potential impacts of governmental management decisions in the southern groundfish fisheries in Chile.

## **SKILLS & INTERESTS**

---

### **Languages**

Spanish native speaker, English fluent speaker, German and Portuguese basic-medium level.

### **Skills**

Advanced Computer Programming, Systems Thinking, Operations Research.

### **Research Interests**

Environmental and Resource Economics, Macroeconomics, Development Economics, Political Economics, Game Theory, and Policy Making.

### **Miscellaneous Interests**

Jazz music, Photography & Non-Technical writing.