

Jessica Y. Luo

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EDUCATION

- Ph.D. **University of Miami**, Miami, FL August 2010 - present
Rosenstiel School of Marine & Atmospheric Sciences
Department of Marine Biology and Fisheries
Major Professor: Dr. Robert Cowen
- M.S. **Stanford University**, Stanford, CA 2006 – 2007
Department of Geological and Environmental Sciences
Thesis: *Dominance of Seasonal Fluctuations over Local Variability on Zooplankton from the Gulf of Aqaba, Red Sea: Analysis of Carbon and Nitrogen Stable Isotopes and Trace Metal Concentrations*
Major Professor: Dr. Adina Paytan
- B.A. **Stanford University**, Stanford, CA 2002 - 2007
Program in Human Biology
Area of Concentration: Environmental Science
- Stanford in Australia**, Queensland, Australia 2004
Targeted Research Project: *Coral Recovery Following Winter 2003 Cold Weather Bleaching at Heron Island*
Advisor: Dr. Sophie Dove

EMPLOYMENT

- Ocean Education and Outreach Coordinator (GS-9 equivalent)** 01/2008 – 07/2010
Point Reyes National Seashore Association
Supervisor: Ben Becker, National Park Service
- Implemented multiple projects including education, outreach and staff support for Point Reyes National Seashore (National Park Service) during the North Central Coast Phase of the California Marine Life Protection Act Initiative.
 - Developed ocean education materials for park staff and a film and lecture series for the local community.
 - Managed science communication projects for the San Francisco Bay Area network of National Parks as the Education Specialist for the Pacific Coast Science and Learning Center, in collaboration with the Inventory & Monitoring Network.
 - Supervised or co-supervised eight science communication interns at the post-college level.
 - Developed and implemented two-week intensive field-study programs for under-represented high school students on marine and aquatic science topics.
 - Expanded youth internship program for Point Reyes National Seashore, funding and facilitating 14 internships in FY10.
 - Written and received over \$311,000 in grants between FY08–10.

RESEARCH EXPERIENCE

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- Cowen Lab**, Marine Biology and Fisheries, Miami, FL Fall 2010-present
- Studying the early life history stages of fishes.
- Paytan Lab**, Department of Geological and Environmental Sciences, Stanford, CA 2005-2007
- Studied carbon and nitrogen stable isotopes and trace metal concentrations in zooplankton in the Gulf of Aqaba, Red Sea, to determine its anthropogenic inputs.
 - Studied carbon and nitrogen stable isotopes in sedimentary organic matter from the Santa Monica Basin from the Late-Pleistocene to Holocene.
- Targeted Research Project**, Stanford in Australia, University of Queensland, Australia Fall 2004
- *Acropora aspera* recovery rates after cold weather bleaching at Heron Island, Queensland, Australia. Independent research project under Dr. Sophie Dove and Dr. Ove Hoegh-Guldberg.
- Patterson Lab**, Department of Anesthesia, Stanford, CA Summer 2004
- Examined the role of the β_2 -Adrenergic Receptor PDZ binding motif in the mouse myocardium in moderating response to stress.

CONFERENCES

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1. **Luo J**, Becker B, Stock J, Dell'Osso JA. Centennial Challenge Ocean Education Program at Point Reyes National Seashore. *George Wright Society*. 2009.
 2. **Luo J**, O'Herron M, Koenen M, Becker B, Anastasia C. Science communication internships as a model for enhancing communication in National Parks. *George Wright Society*. 2009.
 3. **Luo J**, Paytan A, Al-Najjar, T. Using Carbon and Nitrogen Stable Isotopes and Trace Metal Concentrations in Zooplankton to Determine Seasonal and Anthropogenic Influences in the Gulf of Aqaba, Red Sea. *American Geophysical Union*. 2007.
 4. **Luo J**, Paytan A, Al-Najjar, T. Carbon and Nitrogen Stable Isotopes of Zooplankton Tows from the Gulf of Aqaba, Red Sea: Indicators of Anthropogenic Influence? *American Geophysical Union*. 2006.
 5. **Luo J**, Erohina T, Paytan A. Carbon and Nitrogen Stable Isotopes of Sedimentary Organic Matter from the Santa Monica Basin, Southern California. *American Geophysical Union / American Society of Limnology and Oceanography Ocean Sciences Conference*. 2006.
 6. **Luo J**, Erohina T, Paytan A. Carbon Stable Isotopes of Sedimentary Organic Matter from the Santa Monica Basin. *American Geophysical Union*. 2005.
 7. Wong J, Hwang H, **Luo J**, Nekhendzy M, Finsterbach T, Chen C, Patterson, AJ. Preliminary analysis of cardiac structure and function in mice with disruption in the β_2 - adrenergic reception PDZ domain. *Society of Critical Care Medicine*. 2005.
 8. **Luo J**, Feliu M, Hwang H, Romer A, Walsh M, Agrawal R, Patterson AJ. Role of the PDZ motif in β_2 - adrenergic receptor signaling. *Symposium of Undergraduate Research in Progress*. 2004.

GRANTS AND FELLOWSHIPS

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1. National Science Foundation (NSF) Graduate Research Fellowship. \$122,500. 2012-2015.
 2. Robert E. Maytag Fellowship, University of Miami. \$143,052. 2010-2012.

3. "Wetlands Explorers: Engaging Students with Wetlands Science." National Park Service (NPS) Challenge Cost Share Program. \$24,000. 2010.
4. "Enhance Critical Student Internship Program at Point Reyes National Seashore." NPS Youth Internship Program. \$70,000. 2010.
5. "Giacomini wetlands field-based science education program for high school students." NPS Youth Partnerships Program. \$11,000. 2010.
6. "Urban Youth Marine Science Education Program." NPS Youth Partnerships Program. \$44,350. 2009.
7. "Urban Youth Marine Science Education Program." California Coastal Commission Whale Tail Grants Program. \$16,000. 2009.
8. "Point Reyes National Seashore Parks for Science Newsletter." Marin County Fish and Wildlife Commission. \$1,750. 2009.
9. "Engage citizen stewards to protect coastal ecosystems." NPS Challenge Cost Share Program. \$27,000. 2009.
10. "Communicate Ocean Threats and Protection Opportunities." NPS Centennial Challenge. \$90,000. 2008.
11. "Engaging Urban Youth with NPS Marine and Terrestrial Monitoring, Research, and Restoration Programs." NPS Youth Partnerships Program. \$25,000. 2008.
12. "Point Reyes National Seashore Parks for Science Newsletter." Marin County Wildlife and Fisheries Advisory Committee. \$2,000. 2008.
13. "Assessing Anthropogenic Influences on Phytoplankton Nutrient Dynamics using Zooplankton Tows in the Gulf of Aqaba, Red Sea." School of Earth Sciences McGee grant. \$2,000. 2006.
14. Department of Geological and Environmental Sciences Summer Research Fellowship. \$5,500. 2006.
15. Conference travel grant, Undergraduate Research Program. \$750. 2006.
16. "Carbon and Nitrogen Stable Isotopes of Sedimentary Organic Matter from the Santa Monica Basin, Southern California." Undergraduate Research Program. \$1,500. 2005.
17. Department of Geological and Environmental Sciences Summer Research Fellowship. \$5,500. 2005.
18. Program in Human Biology HB-REX Summer Fellowship. \$4,500. 2004.

SERVICE

Reviewer for the National Oceanic and Atmospheric Administration's California Bay Watershed Education and Training Program.

Published articles and newsletters:

1. "Network of Marine Protected Areas Created." NPS.GOV Homepage. August 2009.
<http://home.nps.gov/applications/digest/headline.cfm?type=Announcements&id=8069>
2. "Developing a Love for Science." *Currents*. Point Reyes National Seashore Association. April 2009.
3. *Marine Life Protection Act*. 8-page newsletter. November 2008.
4. "White Sharks at Point Reyes." *West Marin Citizen*. 13 November 2008.
5. "The Need for Marine Protected Areas." *Currents*. Point Reyes National Seashore Association. October 2008.
6. "Raising the Next Generation of Marine Scientists." *Currents*. Point Reyes National Seashore Association. October 2008.

7. "Establishing Marine Protected Areas." *Currents*. Point Reyes National Seashore Association. April 2008.

Ocean Film and Lecture Series. Public film and lecture series aimed at highlighting ocean conservation and research. April 2009 – April 2010.

TEACHING EXPERIENCE

Intern Supervision, Pacific Coast Science & Learning Center, Point Reyes Station, CA 2008 - 2010

- Supervised eight interns at the post-college level working on a variety of projects, including writing research briefs, newsletters, audio and video podcasts, ocean educational program for visitors, and marine protected areas poster graphic design.

Science Seminar, Point Reyes National Seashore, Point Reyes Station, CA 2008 - 2010

- Developed and taught five field-seminars of varying lengths (2 weeks intensive, 1 week intensive, 6 week) for high school students on marine and aquatic science topics.

Private Tutor 2007 - present

- Subjects taught: AP calculus, AP Biology, Pre-calculus, Algebra 2, and Geometry.