

Rebecca Suzanne Isquith

Education

- Northeastern University**, Boston, Massachusetts December 2009
Master of Science in Marine Biology, Three Seas Program, GPA 3.77
Nahant, Massachusetts; Moorea, French Polynesia; Catalina Island, California
*Assessing the synergistic effects of ship noise and structure on cortisol levels in winter flounder, *Pseudopleuronectes americanus*.*
Thesis advisor, Randi Rotjan, Ph.D.
- University of California, Davis**, California June 2006
Bachelor of Science in Wildlife, Fish and Conservation Biology, emphasis in Conservation Biology
- Universidad de Andres Bello**, Santiago, Chile. Ocean Ecology course Summer 2005

Employment History

- Research Assistant**, *New England Aquarium, Edgerton Research Laboratory, Boston, MA* April 2009-Present
Characterize the dynamics of fish response to the potential stress of ship noise from Liquid Natural Gas (LNG) ports. Conducting lab-based research, amassing skills in animal care and husbandry, phlebotomy, underwater acoustics, solid phase extractions, and enzyme immunoassays. Experimental work includes blood-water cortisol validations for all fish species (lumpfish, juvenile cod, various flounder species and wolfish) and a full water-based assay using a fully factorial sounds-structure experimental design for each species.
Randi Rotjan, Ph.D. and John Mandelman, Ph.D.
- Program Assistant**, *Three Seas Program, Gump Field Station, Moorea French Polynesia* January 2010-March 2010
Teaching assistant for Ocean & Coastal Processes course; faculty assistant for lecture and lab preparation. Also advised students developing independent research projects.
Sal Genovese, Ph.D.
- Research Intern**, *New England Aquarium, Edgerton Research Laboratory, Boston, MA* June 2009-December 2009
Conducted lab-based research on the synergistic effects of structure and ship noise associated with Liquid Natural Gas ports in Mass Bay to determine cortisol levels in winter flounder.
Randi Rotjan, Ph.D. and John Mandelman, Ph.D.
- Data Coordinator**, *UCSF Comprehensive Cancer Center, San Francisco, CA* June 2007-July 2008
Performed data entry for the Urologic Oncology Clinical Trials Program. Worked on Pharmaceutical, Primary Investigator, and Cancer and Leukemia Group B studies, and managed data for clinical trials at UCSF.
Jonathan Rosenberg, M.D. and Paula Dutton
- Interpretive Naturalist**, *Aquarium of the Bay, San Francisco, CA* September 2006-May 2007
Educated guests about exhibits of the Bay Estuary, operated touch pools, monitored animal husbandry & behavior.
- NOAA Biologist**, *National Oceanic & Atmospheric Administration (NOAA), Seattle, WA* June-August 2006
Reconstruction of oceanographic features on the eastside of Kodiak Island. Data gathering and analysis using ArcMap. Assisted in the preparation of technical report writing. Resulted in poster presentation (detailed below).
Anne B. Hollowed, Ph.D.
- Intern**, *Hydraulics Lab and Center for Aquatic Biology and Aquaculture, UC Davis, CA* Fall 2004-Spring 2006
Conducted experimental trials on delta smelt and white sturgeon, measured water quality, managed fish care, data entry, data analysis, report writing, literature research. Trained on all hydraulic laboratory equipment. Acknowledged in a resulting publication: Klimley, P.A., J.J. Cech, Jr., and L.C. Thompson. 2007. *Experimental and Field Studies to Assess Pulsed, Water Flow Impacts on the Behavior and Distribution of Fishes in the South Fork of the American River*. Public Interest Energy Research Consulate Report.
Joseph J. Cech Jr., Ph.D.

Publications and Presentations

Isquith, R., S. Abboud, R. Rotjan and J. Mandelman. 2010. *Assessing the synergistic effects of ship noise and structure on cortisol levels in winter flounder, Pseudopleuronectes americanus*. **66th Northeast Fish and Wildlife Conference**, Boston, MA.

Fennimore, R., **R. Isquith**, S. Abboud, J. Mandelman and R. Rotjan. 2010. *A Non-Invasive Assay for Quantifying Fish Stress Hormones*. Poster presentation, **66th Northeast Fish and Wildlife Conference**, Boston, MA.

Isquith, R., S. Abboud, R. Rotjan and J. Mandelman. 2010. *Assessing the synergistic effects of ship noise and structure on cortisol levels in winter flounder, Pseudopleuronectes americanus*. Poster presentation, **39th Benthic Ecology Meeting**, Wilmington, NC.

Abboud, S., B. Helmuth, K. Hanson, **R. Isquith** and R. Rotjan. 2010. *The effect of predation and flow exposure on growth and morphology of Spirobranchus gaymardi polychaete worms*. Poster presentation, **39th Benthic Ecology Meeting**, Wilmington, NC.

Fennimore, R., **R. Isquith**, S. Abboud, J. Mandelman and R. Rotjan. 2010. *A Non-Invasive Assay for Quantifying Fish Stress Hormones*. Poster presentation, **39th Benthic Ecology Meeting**, Wilmington, NC.

R. Isquith. 2009. *Assessing the synergistic effects of ship noise and structure on cortisol levels in winter flounder, Pseudopleuronectes americanus*. **New England Aquarium** invited seminar, Boston, MA.

Hollowed, A., C. Wilson, P. Stabeno, **R. Isquith** and E. Logerwell. 2006. *Effect of Ocean Conditions on the Cross-shelf Distribution of Walleye Pollock (Theragra chalcogramma) and Capelin (Mallotus villosus)*. Poster presentation, **24th Lowell Wakefield Fisheries Symposium**, Anchorage, AK.

Certifications and Professional Organizations

Boat US Foundation small boat operation certified 2009, NAUI Nitrox Certification 2009, AAUS Scientific Diver Certification 2008, NAUI First Aid, CPR, and O₂ Certification 2008, Padi Advanced Open Water Scuba Certification 2008, American Fisheries Society 2006.

Specialized Skills

Field sampling techniques, experimental design, data analysis, underwater acoustics, animal husbandry, phlebotomy, enzyme immunoassays, solid phase extractions, grant proposal writing, public speaking, JMP and SigmaStat statistical software, SpectraPLUS acoustic software, ArcMap GIS software.

References available upon request

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