

CARLY A. STRASSER

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EDUCATION

- 2008 **Ph.D., Biological Oceanography**, Massachusetts Institute of Technology/Woods Hole Oceanographic Institution Joint Program. Dissertation Title: “Metapopulation Dynamics of the softshell clam, *Mya arenaria*.” Primary Advisor: Lauren Mullineaux
- 2001 **B.A., Marine Science** with Biology emphasis, Minor in Chemistry. University of San Diego. Summa Cum Laude. Thesis title: “Population structure of the Antarctic krill, *Euphausia superba*.” Advisor: Ron Kaufmann

RESEARCH & PROFESSIONAL EXPERIENCE

- Currently **Postdoctoral Investigator**, Woods Hole Oceanographic Institution. Developing and implementing demographic models of the endangered North Atlantic Right Whale population based on mark-recapture data. Advisor: Hal Caswell
- 2002-2008 **Graduate Student**, Woods Hole Oceanographic Institution
- Developed matrix metapopulation model to explore patch dynamics in a stochastic environment, especially relating to disturbance
 - Developed trace-metal clean techniques to prepare juvenile clam shells for analysis of chemical composition
 - Designed and carried out laboratory experiments to explore clam shell elemental incorporation, especially for development as a natural tag of natal habitats
 - Used mitochondrial genes to study population connectivity of the softshell clam
 - Participated in two three-week research cruises aboard *RV Atlantis* where duties included mooring and instrument setup and deployment, biological sample preparation and preservation, and observational assistant on *ALVIN* submersible
- 2001-2002 **Laboratory Manager**, Maric College, San Diego CA. Managed education laboratories for Biology, Anatomy & Physiology, and Biochemistry. Generated budgets, ordered supplies, prepared and maintained materials for student laboratory work, maintained bacterial cultures.
- 1998-2002 **Undergraduate Research Assistant**, University of San Diego. Studied population structure of krill by determining patterns in sex and age structure of individuals from net tows. Processed and sorted plankton samples during NSF Research cruise to Antarctic Peninsula.

FELLOWSHIPS & AWARDS

National Defense Science and Engineering Graduate Fellowship (2002-2005), National Barry M. Goldwater Scholarship recipient (1999-2001), University of San Diego Dean’s List (1997-2001), Outstanding Scholarship for Marine Science Department, USD (2001), Outstanding Research for Marine Science Department, USD (2001), USD Associated Students Research Grant (1999), USD Trustee Scholarship Recipient (1997-2001)

TEACHING & MENTORING EXPERIENCE

- 2006 **Participant**, NSF-sponsored COSEE-NE course intended to establish communication between graduate students and elementary school teachers. Taught marine science lessons to elementary students
- 2006 **Advisor**, Victoria Stearns, high school summer intern
- 2005 **Co-advisor**, Alexis Jackson, WHOI Undergraduate Minority Fellow
- 2004, 2005 **Guest lecturer**, Biological Oceanography. Woods Hole Oceanographic Institution
- 2004 **Teaching assistant**, Biological Oceanography. Woods Hole Oceanographic Institution
- 2004 **Advisor**, Stephanie Pommrehn, high school summer intern
- 2001-2002 **Instructor**, Introduction to Biology, Maric College, San Diego CA. Taught lecture and laboratory components. Developed curriculum, prepared lectures, organized field trips, and developed testing and other assessment materials.
- 2000 **Teaching assistant**, Invertebrate Zoology, University of San Diego

PUBLICATIONS

Strasser, CA, LS Mullineaux and BD Walther. 2008. Growth rate and age effects on *Mya arenaria* shell chemistry: implications for biogeochemical studies. *Journal of Experimental Marine Biology and Ecology* 355: 153-163.

Strasser, CA SR Thorrold, VR Starczak, and LS Mullineaux. 2007. Laser ablation ICP-MS analysis of larval shell in softshell clams (*Mya arenaria*) poses challenges for natural tag studies. *Limnology & Oceanography: Methods* 5: 241-249.

Strasser, CA, and PH Barber. In Press. Limited genetic variation and structure in softshell clams (*Mya arenaria*) across their native and introduced range. *Conservation Genetics*.

Strasser, CA, LS Mullineaux, and SR Thorrold. In Press. Temperature and salinity effects on elemental uptake in the shells of larval and juvenile softshell clams (*Mya arenaria*). *Marine Ecology Progress Series*.

Strasser, CA, M Neubert, H Caswell, and C Hunter. Stochastic Disturbance and the Impact of High and Low Quality Patches on Metapopulation Growth Rate. In preparation for submission to *Journal of Theoretical Ecology*.

MEETING PARTICIPATION

- 2007 “Stochastic disturbance and the impact of high and low quality patches on metapopulation growth rate.” Presentation at Ecological Society of America & Society for Mathematical Biology Annual Meetings, San Jose CA.
- 2006 “LA-ICPMS burns through larval shell of *Mya arenaria*, posing challenges for connectivity studies.” Poster presented at the 2006 Ocean Sciences Conference, Honolulu, HI.
- 2004 “Trace Element Composition of Larval Bivalve Shells Reflects Natal Environment.” Poster presented at the 2004 Ocean Research Conference, Honolulu, HI.

ACTIVITIES & MEMBERSHIPS

- 2004 Elected Biology Department Graduate Student Representative
- 2007 Founder and member, Student Representative Committee to the Joint Program in Biological Oceanography, WHOI
- 2003 – present Member, American Society of Limnology and Oceanography
- 2006 – present Volunteer, Big Brothers & Big Sisters of the Cape and Islands
- 2007 – present Member, Ecological Society of America
Member, Society for Mathematical Biology