

## Brian Schlining

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### EDUCATION

#### *Masters of Science in Marine Science/Physical Oceanography*

1999 Moss Landing Marine Laboratories - Moss Landing, CA  
Graduate research focused on the intrusion of equatorial waters into Monterey Bay and associated effects on midwater animal distributions. G.P.A 3.90/4.00. Graduated with distinction.

#### *Bachelors of Science in Biology*

1990 University of Maryland - College Park, MD

### WORK EXPERIENCE

Monterey Bay Aquarium Research Institute - Moss Landing, CA	
2004 - present	<i>Software Engineer</i>
2001 - 2004	<i>Software Application Developer</i>
1998 - 2001	<i>Research Technician</i>
	Develop and support software applications used for oceanographic research, data systems, GIS applications, and hardware control. Some highlights include: <ul style="list-style-type: none"><li>- Lead engineer for the Video Annotation and References System (VARS) project, a software and hardware system for creating and archiving annotations of deep sea video footage. Built around a relational database management system, VARS is used to annotate video both at sea in real-time and in the lab after an expedition. Due to the frequency of MBARI's remotely operated vehicle (ROV) operations, MBARI employs five staff dedicated to managing a collection of over 15,000 hours of underwater video recorded by the ROV's Tiburon and Ventana. More than one hundred different scientists and staff have used VARS to catalog 2.1+ million observations from MBARI's video collection.</li><li>- Contributing engineer to the Shore-side Data System (SSDS) and the Software infrastructure and application for MOOS (SIAM) projects. SSDS and SIAM represent the core software components used for instrument control, data acquisition, and data archiving for both the Monterey Ocean Observing Systems (MOOS) and the Monterey Accelerated Research System (MARS).</li><li>- Developed computer models and analytical methods for interpreting bio-optical data collected by MBARI as part of the NASA/SIMBIOS project.</li><li>- Project manager for the core mooring data project.</li></ul>
1997	<i>Research Internship</i>
	Examined physical processes affecting distribution of mesopelagic animals in Monterey Bay.

California State University Monterey Bay - Seaside, CA	
1998 - 1999	<i>Diving Safety Officer</i>
	Created and administered a scientific diving program meeting the American Academy of Underwater Sciences guidelines for research diving.

Naval Post-graduate School - Monterey, CA	
1998	<i>Research Technician</i>
	Developed software used for the archiving, visualization, and analysis of oceanographic data collected from drifter buoys deployed in the Mediterranean Sea.

Moss Landing Marine Laboratories - Moss Landing, CA	
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1996, 1998	<i>Research Assistant</i> Assisted software development for MOBY (Marine Optical Buoy), used for the calibration of the SeaWiFS (Sea-Viewing Wide Field-of-view Sensor) satellite package. Participated in data-collecting cruises and assisted with mooring replacement on SCUBA.
Moss Landing Marine Laboratories continued	
1996 - 1998	<i>Teaching Assistant</i> Instructed SCUBA classes and prepared students for research diving in cold-water environments.
1997	<i>Acting Diving Safety Officer</i> Directed scientific diving operations and instructed scientific diving classes.
Broadreach - Providenciales, Turks and Caicos Islands	
1996	<i>Marine Science and SCUBA Instructor</i> Instructed an undergraduate-level marine science field course focusing on research diving techniques.
Monterey Bay Kayaks - Monterey, CA	
1995 - 1996	<i>Kayaking Guide and Naturalist</i>
Bamfield Marine Station - Bamfield, BC	
1995	<i>Research Assistant and Research Diver</i> Assisted field research by Dr. Don Levitan on fertilization kinetics of free-spawning invertebrates.
Catalina Island Marine Institute - Santa Catalina Island, CA	
1992 - 1995	<i>SCUBA Instructor</i> Instructed all levels of SCUBA training from Resort classes through Master Diver certification as part of a summer program (Catalina Seacamp) for teens. Designed and instructed underwater photography classes implementing basic and advanced photographic principals.
1992 - 1994	<i>Marine Science Instructor</i> Educated students, 4th grade through adult, in areas of oceanography, phycology, zoology, island ecology, and skin diving. Acted as program coordinator on a rotating basis, working as liaison between incoming school groups and the administrative staff.
The Marine Science Consortium - Wallops Island, VA	
1994	<i>Marine Science Instructor</i> Led experiential classes in chemical oceanography, zoology, wetland ecology, and intertidal biology. Developed educational resources for classroom presentations.
Apple English School - Osaka, Japan	
1993 - 1994	<i>English Teacher</i>
Newfound Harbor Marine Institute - Big Pine Key, FL	
1991	<i>Marine Science Instructor</i>
Seacamp, Inc. - Big Pine Key, FL	
1991	<i>Marine Science Instructor</i>

#### MEMBERSHIPS AND AFFILIATIONS

1998 - 1999      California State University Monterey Bay, Diving Control Board

1997 - present Diver's Alert Network, Oxygen Administration Instructor  
 2006 - present IEEE Computer Society  
 2006 - present IEEE Oceanic Engineering Society  
 1996 - present Monterey Bay Aquarium, Volunteer Diver  
 1996 - 1999 Moss Landing Marine Laboratories, Diving Control Board  
 1992 - present National Association of Underwater Instructors, SCUBA Instructor  
 1996 - 2000 Pacific Grove Hyperbaric Chamber Crew  
 1996 - 2000 Pacific Grove Ocean Rescue Squad

#### PUBLICATIONS

**Schlining, B.** (2006). Turning video into information. In: *Proceedings of the Australian Society for Fish Biology Conference and Workshop on Cutting-edge Technologies in Fish and Fisheries Science*, Hobart, Australia.

**Schlining, B.** and N. Jacobsen Stout (2006). MBARI's Video Annotation and Reference System. In: *Proceedings of the Marine Technology Society / Institute of Electrical and Electronics Engineers Oceans Conference*, Boston, Massachusetts.

Paull, C.K., **B. Schlining**, W. Ussler III, J.B. Paduan, D. Caress, and H.G. Greene (2005). Distribution of chemosynthetic biological communities in Monterey Bay, California. *Geology*, **33**: 85-88.

Drazen, J.C., S.K. Goffredi, **B. Schlining**, and D.S. Stakes (2003). Aggregations of egg brooding deep-sea fish and cephalopods on the Gorda Escarpment: a reproductive hotspot? *Biological Bulletin*. 205: 1-7.

Graybeal, J., K. Gomes, M. McCann, **B. Schlining**, R. Schramm, and D. Wilkin (2003). MBARI's SSDS: Operational, extensible data management for ocean observatories. In: *The Third International Workshop on Scientific Use of Submarine Cables and Related Technologies*, Tokyo. pp. 288-292.

Chavez, F.P., J.T. Pennington, C.G. Castro, J.P. Ryan, R.P. Michisaki, **B. Schlining**, P.M. Walz, K.R. Buck, A. McFadyen, and C.A. Collins (2002). Biological and chemical consequences of the 1997-98 El Niño in central California waters. *Progress in Oceanography*, **54**: 205-232.

F.P. Chavez, P.G. Stratton, **B.M. Schlining**. 2000. Bio-Optical Measurements at Ocean Boundaries in Support of SIMBIOS. In: *SIMBIOS Project Annual Report*. pp. 51-55.

#### MENTORSHIPS

Pierre Venuat, graduate summer intern, University of Poitiers, France (MBARI Deep Sea Guide: designing a web interface that represents information about the Monterey Bay deep sea world). 2005.

Carolina Fayos, undergraduate, California State University, Monterey Bay (interannual variability of oceanic poleward currents of Monterey Bay during 1997-98 El Niño Southern Oscillation [ENSO] years versus prior ENSO and non-ENSO years). 1999.

#### INVITED LECTURES

Commonwealth Scientific and Industrial Research Organization, Brisbane, Australia (2007)

Commonwealth Scientific and Industrial Research Organization, Hobart, Australia (2007)

Australian Society for Fish Biology, Hobart, Australia (2006)

University of Victoria, Victoria, Canada (2006)

Catalina Island Marine Institute, Avalon, California (2002)

Monterey Peninsula College, Monterey, California (2002)

Explorer Post 2100, San Jose, California (1999, 2000, 2001)

#### AWARDS

Ernest Frohlich Fellowship, CSIRO (2007)