

Elizabeth D. Tobin

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Education:

In Progress:	Ph.D. Oceanography University of Washington School of Oceanography Advised by Dr. Daniel Grünbaum	Expected 2014 Seattle, WA
Acquired:	M.S. Oceanography University of Washington School of Oceanography Advised by Dr. Daniel Grünbaum	December 2009 Seattle, WA
	B.S. Aquatic Biology – <i>Magna Cum Laude</i> University of California, Santa Barbara <i>Distinction in the major</i>	June 2005 Santa Barbara, CA

Research Experience:

Ph.D. Thesis:	Quantification of transitional swimming behaviors in harmful algae: Implications for pelagic and benthic population distributions.	January 2010 – present
	<i>In situ</i> optical detection and characterization of harmful algae. *Instrumentation development	June 2010 - present
Masters Research:	Pelagic-benthic transition of the harmful alga, <i>Heterosigma akashiwo</i> : Changes in swimming and their implications for benthic distributions	September 2006 – December 2009
	Year round germination potential and emergence rates of <i>Alexandrium catenella</i> cysts collected from surface sediments in Quatermaster Harbor, WA.	September 2006 – November 2007
Undergraduate research:	Disease transmission in the purple urchin, <i>Strongylocentrotus purpuratus</i> .	January 2004 – June 2005

Publications:

Tobin, E.D., Grünbaum, D. and Cattolico, R.A. 2013. Behavioral and physiological changes during benthic-pelagic transition in the harmful alga, *Heterosigma akashiwo*: Potential for rapid bloom formation. (In Prep)

Tobin, E.D., Grünbaum, D. and Cattolico, R.A. 2011. Pelagic-benthic transition of the harmful alga, *Heterosigma akashiwo*: Changes in swimming and their implications for benthic distributions. Harmful Algae 10(6): 619-628.

Tobin, E.D. and Horner, R.A. 2011. Germination characteristics of *Alexandrium catenella* cysts from surface sediments in Quatermaster Harbor, Puget Sound, Washington, USA. Harmful Algae 10(1): 216–223.

Lester, S.E., **E.D. Tobin**, and M.D. Behrens. 2007. Disease dynamics and the potential role of thermal stress in the sea urchin, *Strongylocentrotus purpuratus*. Can. J. Fish. Aquat. Sci. 64: 314-323.

Presentations:

15th International Conference on Harmful Algae

November 2012

“Benthic-pelagic transitions in the harmful alga, *Heterosigma akashiwo*: Assessing the influence of swimming behaviors and growth on bloom formation. (Oral Presentation)

ASLO/AGU 2012 Ocean Sciences Meeting

February 2012

“Quantification of transitional swimming behaviors in the harmful alga, *Heterosigma akashiwo*, and their implications for pelagic and benthic distributions.” (Poster)

Salish Sea Ecosystem Conference

October 2011

“An optical remote sensor for detection and prediction of *Heterosigma akashiwo* Harmful Algal Blooms.” (Poster)

Rotary Club of South Everett/Mukilteo

August 2011

“Harmful Algal Blooms in Puget Sound.” (Oral Presentation)

Phycological Society of America Annual Meeting

July 2011

“Motility during pelagic-benthic life-stage transitions for the harmful alga, *Heterosigma akashiwo* and the implications for bloom dynamics.” (Oral Presentation)

EEAW/WSTA Conference

March 2011

“Harmful Algal Blooms in Puget Sound.” (Oral Presentation)

14th International Conference on Harmful Algae "Motility during life-stage transitions of the harmful alga, <i>Heterosigma akashiwo</i> : Assessing implications for bloom dynamics." (oral presentation)	November 2010
H2O Seminar Series – UW, Oceanography "Towards a remotely sensed early-warning capability for <i>Heterosigma akashiwo</i> HABs." (oral presentation)	March 2010
Society of Integrative and Comparative Biology (SICB) Annual Meeting "Life cycle transition of the harmful alga, <i>Heterosigma akashiwo</i> : Changes in swimming and implications for cyst distribution." (oral presentation)	January 2010
Fifth U.S. Symposium on Harmful Algal Blooms "Swimming behavior during pelagic-benthic transition of the harmful algal, <i>Heterosigma akashiwo</i> : Implications for cyst distribution." (poster)	October 2009
COSEE-OLC and Washington Sea Grant's Communicating Ocean and Marine Sciences "Germination of <i>Alexandrium catenella</i> cysts from surface sediments in Quartermaster Harbor, WA." (poster).	November 2008
PNW-SEATAC Annual Meeting "Germination of <i>Alexandrium catenella</i> cysts from surface sediments in Quartermaster Harbor, WA." (poster).	March 2008
Fourth U.S. Symposium on Harmful Algal Blooms "Germination of <i>Alexandrium catenella</i> cysts from surface sediments in Quartermaster Harbor, WA." (poster).	October 2007

Fellowships and Awards:

• ASLO Ocean Sciences Meeting - Outstanding Student Presentation	February 2012
• NSF, IGERT Ocean Change Fellowship	Sept. 2011 – Aug. 2013
• The Link Foundation Ocean Engineering and Instrumentation Fellowship	July 2011- July 2012
• PSA Annual Meeting - Bold Award: best graduate student paper	July 2011
• NSF, OACIS GK-12 Teaching Fellowship	June 2008 – June 2010

Teaching and Outreach:

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| • Volunteer as an on-board marine science educator for the Ocean Inquiry Project | 2007 - Present |
| • Workshop organizer/presenter - 2011 EEA/WSTA conference. Workshop title: What's in the Water? Puget Sound Marine Science Research for the Classroom. | March 2011 |
| • Volunteer Science Judge for the Washington Regional Ocean Sciences Bowl | 2007-2011 |
| • Co-instructor, Marine Science at Garfield High School. Seattle, WA | 2008-2010 |
| • Guest lecturer at Lopez Island High School in the San Juan Islands. | May 2010 |
| • Volunteer for The Pacific Science Center's "Marine exploration weekend." Designed and presented the "Who Will I Be When I Grow Up?" exhibit. Participants learned about the various life stages of marine invertebrates, observing planktonic larvae and even created one of their own. | April 2008, 2009 |
| • Teaching Assistant for the course "Best Teaching Practices in the High School Classroom" at the University of Washington. This course provides new GK-12 fellows with the latest science teaching pedagogy and skills | Fall 2009 |
| • Participant of the "Communicating Ocean Sciences" course. A course designed to improve students' ability to communicate scientific knowledge. | Spring 2007 |
| • Guest presenter at Ballard High School, Seattle City Schools. | May 2007 |
| • Volunteer for the Echo Lake Elementary science night. "Sea ice experiment: salt water vs. fresh water ice" and "Puget Sound Plankton" | March 2007 |
| • Volunteer for Science night at North City Elementary. "The Great Plankton Race" | March 2007 |

Professional Memberships:

- American Society of Limnology and Oceanography (ASLO)
- Phycological Society of America (PSA)
- Washington State Teachers Association (WSTA)
- International Society for the Study of Harmful Algae (ISSHA)
- Society of Integrative and Comparative Biology (SICB)
- National Science Teachers Association (NSTA)