Curriculum Vitae

JASON EARL ADOLF
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1. EDUCATION

2002 – Ph.D., Marine Estuarine and Environmental Sciences, University of Maryland, College Park, Maryland, Dissertation: "Photosynthetic physiology and carbon metabolism in the mixotrophic dinoflagellate, *Karlodinium micrum*". Advisor: Lawrence W. Harding, Jr.
1996 – M.S., Botany, University of Hawai'i, Manoa. Thesis: "Isolation and characterization of a non-specific nuclease produced by *Scytonema ocellatum* FF-66-3". Advisor: Gregory M.L. Patterson
1993 – B.S., Marine Biology, Roger Williams University, Bristol, Rhode Island

2. POSITIONS HELD

2008 – pres. Assistant Professor of Marine Science, University of Hawai'i Hilo
2006 – 2008 - Adjunct Assistant Professor, Gettysburg College, PA
2004 – 2008 – Postdoctoral Assistant Research Scientist, UMBI COMB
2003 – 2004 – Postdoctoral Assistant Research Scientist, Horn Point Laboratory
2001 – 2002 - Maryland Sea Grant Traineeship, Horn Point Laboratory
1996 – 2001 - Graduate Research Assistant, Horn Point Laboratory
1994 – 1996 – Graduate Research Assistant, Dept. of Chemistry, University of Hawai'i Manoa
1993 – Teaching Assistant, Department of Biology, University of Hawai'i Manoa

3. RESEARCH INTERESTS

My research interests are in the field of phytoplankton ecology and evolution. Particularly, understanding the mechanisms that drive changes in community composition, and how these change impact the ecological function of phytoplankton.

4. PUBLICATIONS

First-author publications

Adolf, J. E., Bachvaroff, T.R., and Place, A.R. (2009). Environmental modulation of Karlotoxin levels in strains of the cosmopolitan dinoflagellate, *Karlodinium veneficum* (Dinophyceae). *J. Phycol.* 45(176-192).

Adolf, J. E., Bachvaroff, T.R., and Place, A.R. (2008a). Can cryptophyte abundance trigger toxic *Karlodinium veneficum* blooms in eutrophic estuaries? *Harmful Algae* 8: 119-128.

Adolf, J.E., Bachvaroff, T.R., and Place, A.R. (2008b) *Manger à trois* : Toxic vs. non-toxic *Karlodinium veneficum* strains with a predator, *Oxyrrhis marina*, and prey, *Storeatula major*. *Proceedings of the 12th International Conference on Harmful Algae, Copenhagen Denmark*. pp. 107-10

Adolf, J. E., Place, A.R., Stoecker, D.K., and Harding, L.W. Jr., 2007a. Modulation of polyunsaturated fatty acids in mixotrophic *Karlodinium veneficum* (Dinophyceae) and its prey, *Storeatula major* (Cryptophyceae). *J. Phycol.* 43, 1259-1270.

Adolf, J.E., Krupatkina, D., Bachvaroff, T., and Place, A.R. 2007b. Karlotoxin mediates grazing of *Oxyrrhis marina* on strains of *Karlodinium veneficum. Harmful Algae* 7, 400-412 http://dx.doi.org/10.1016/j.hal.2006.12.003.

Adolf, J.E., Yeager, C.L., Mallonee, M.E., Miller, W.D., and Harding, L.W. Jr. 2006a. Environmental forcing of phytoplankton floral composition, biomass, and primary productivity in Chesapeake Bay, USA. *Estuarine, Coastal and Shelf Science* 67:108-122.

Adolf, J.E., D.K. Stoecker, and L.W. Harding, Jr. 2006b. The balance of autotrophy and heterotrophy during mixotrophic growth of *Karlodinium micrum* (Dinophyceae) *J. Plank. Res* 28(8):737-751.

Adolf, J. E., Bachvaroff, T.R., Krupatkina, D.N., Nonogaki, H., Brown, P.J.P., Lewitus, A.J., Harvey, H.R., and Place, A.R. 2006c. Species specificity and potential roles of *Karlodinium micrum* toxin. *African Journal of Marine Science Harmful Algae 2004.* P. G. C. Pitcher, T.A., Verheye, H.M. [Eds.], 28: 415-421.

Adolf, J.E., D.K. Stoecker, and L.W. Harding, Jr. 2003. Autotrophic growth and photoacclimation of *Karlodinium micrum* (Dinophyceae) and *Storeatula major* (Cryptophyceae). *Journal of Phycology* 39: 1109-1115.

Adolf, J.E. 1996. Isolation and characterization of *Scytonema ocellatum* extracellular nuclease. *Pacific Science* 50: 236.

Contributing-author publications

Sheng, J., Malkiel, E., Katz, J., **Adolf, J**., Place, A.R. (2010) A dinoflagellate exploits toxin to immobilize prey prior to ingestion. *Proc. Nat. Acad. Sci.* 107: 2082-2087.

Bachvaroff, T. R., **Adolf, J.E**., and Place, A.R. (2009). Strain variation in *Karlodinium veneficum* (Dinophyceae): toxin profiles, pigments, and growth characteristics. *J. Phycol* 45: 137-153.

Hall, N.S., Litaker, R.W., Fensin, E., **Adolf, J.E.**, Place, A.R., and Paerl, H.W. (2008) Environmental Factors Contributing to the Development and Demise of a Toxic Dinoflagellate (*Karlodinium veneficum*) Bloom in a Shallow, Eutrophic, Lagoonal Estuary. *Estuaries and Coasts* DOI 10.1007/s12237-008-9035-x

Bachvaroff, T. R., **Adolf, J. E.**, and Place, A. R. (2008) Phylogeography of Atlantic Coast *Karlodinium veneficum* Strains: A Genetic Marker Correlates with Toxin Type*. Proceedings of the 12th International Conference on Harmful Algae, Copenhagen Denmark*, pp. 55-58.

Bachvaroff, T.R., **Adolf, J.E.**, Squier, A., Harvey, H.R., and Place, A.R., (2007) Liquid chromatographic-mass spectroscopic characterization, detection, and quantification of karlotoxins. *Harmful Algae* http://dx.doi.org/10.1016/j.hal.2007.10.003

Bai, X., **Adolf, J.E.**, Bachvaroff, T., Place, A.R., and D.W. Coats (2007). The interplay between host toxins and parasitism by *Amoebophyra*. *Harmful Algae* 6: 670-678. http://dx.doi.org/10.1016/j.hal.2007.01.003

Brownlee, E. F., Place, A. R., Nonogaki, H., **Adolf, J. E.**, Sellner, S. G., and Sellner, K. G. (2006). *Crassostrea ariakensis* and *C. virginica* responses to ichthyotoxic *Karlodinium veneficum*. *J. Shellfish. Res*. 25(2):714

Brownlee, E.F., Sellner, S.G., Sellner, K.G., Nonogaki, H., **Adolf, J.E**., Bachvaroff, T.R., and Place, A.R. 2008. Responses of *Crassostrea virginica* (Gmelin) and *C. ariakensis* (Fujita) to bloom-forming phytoplankton including ichthyotoxic Karlodinium veneficum (Ballantine). *J. Shellfish Res.* 27(3): 581-591.

Place, A. R., Brownlee, E. F., Sellner, S. G., Sellner, K. G., Nonogaki, H., **Adolf, J. E.**, and Bachvaroff, T. R., (2008). Bivalve responses to ichthyotoxic *Karlodinium veneficum* (Ballantine). Proceedings of the 12th International Conference on Harmful Algae, Copenhagen Denmark pp. 5-8.

Sheng, J., Malkiel, E., Katz, J., **Adolf, J**., Belas, R., Place, A.R., 2007. Digital holographic microscopy reveals prey-induced changes in swimming behavior of predatory dinoflagellates 10.1073/pnas.0704658104. *Proc. Nat. Acad. Sci.* 104(44), 17512-17517.

Stoecker, D. K., **Adolf, J. E.**, Place, A. R., Glibert, P., M., and Meritt, D. (2008). Effects of the dinoflagellates *Karlodinium veneficum* and *Prorocentrum minimum* on early life history stages of the Eastern Oyster, *Crassostrea virginica*. *Marine Biology*. Published online 25 Jan. 2008 http://dx.doi.org/10.1007/s00227-007-0901-z

Miller, W.D., L.W. Harding, Jr., and **Adolf, J.E.** 2006. Hurricane Isabel generated an unusual fall bloom in Chesapeake Bay, *Geophys. Res. Lett.*, 33, L06612, doi:10.1029/2005GL025658.

Paerl, H.W., L.M. Valdes, **J.E. Adolf**, B.L. Pierls, and L.W. Harding Jr. 2006. Anthropogenic and climatic influences on the eutrophication of large estuarine ecosystems. *Limnology and Oceanography* 51(1, part 1): 448-462.

W.M. Kemp, W.R. Boynton, **J.E. Adolf**, D.F. Boesch, W.C. Boicourt, G. Brush, J.C. Cornwell, T.R. Fisher, P.M. Glibert, J.D. Hagy, L.W. Harding, E.D. Houde, D.G. Kimmel, W.D. Miller, R.I.E. Newell, M. R. Roman, E.M. Smith, J.C. Stevenson. 2005. Eutrophication of Chesapeake Bay: Historical trends and ecological interactions. *Marine Ecology Progress Series* 303:1-29. open access @ http://www.int-res.com/abstracts/meps/v303/

Roman, M.R., **J.E. Adolf**, J. Bichy, W.C. Boicourt, L.W. Harding, Jr., E.D. Houde, S. Jung, D.G. Kimmel, W. D. Miller, and X. Zhang. 2005. Enhancement of plankton and fish abundance in Chesapeake Bay by Hurricane Isabel. American Geophysical Union *Eos* newsletter July 12, 2005

Li, A., D.K. Stoecker, and **J.E. Adolf**. 1999. Feeding, pigmentation and growth of the mixotrophic dinoflagellate *Gyrodinium galatheanum*. *Aquatic Microbial Ecology* 19: 163-176.

Deeds, J.R., D.E. Terlizzi, **J.E. Adolf**, D.K. Stoecker, and A.R. Place. 2002. Toxic activity from cultures of *Karlodinium micrum* (=*Gyrodinium galatheanum*) (Dinophyceae)- a dinoflagellate associated with fish mortalities in an estuarine aquaculture facility. *Harmful Algae* 1: 169-189.

Magnuson, A., Harding, L.W. Jr., Mallonee, M.E., and **Adolf, J.E.** Bio-optical model for the Chesapeake Bay and Middle Atlantic Bight. *Estuarine, Coastal and Shelf Science* 61:403-424.

5. PRESENTATIONS (* = invited)

Adolf, J.E. 2010. Coastal phytoplankton dynamics around Hawaii Island. Hilo Seminar Series, hosted by the Institute for Pacific Island Forestry, Hilo, HI. Dec 7, 2010.

Wiegner, T. and **Adolf, J.** 2009. Past, present and future water quality research in Hilo Bay. Hosted by the Hilo Bay Watershed Advisory Group, Mokupapapa Discovery Center, May 14, 2009

Belas, R. J. Sheng, E. Malkiel, J. Katz, **J. Adolf**, and A.R. Place. 2008. Digital Holographic Microscopy Reveals Prey-Induced Changes in Swimming Behavior of Predatory Dinoflagellates. Sensory Transduction in Microorganisms Gordon Research Conference. 01/13-18/2008. Ventura Beach, CA.

Adolf, J.E., Bowers, H.A., and Place, A.R. 2008. Cryptophytes, karlotoxins and bloom formation by the ichthyotoxic dinoflagellate, *Karlodinium veneficum*. Ocean Sciences meeting, Orlando, Florida, March 2 – 7, 2008.

Adolf, J.E., Bowers, H.A., Bachvaroff, T.R., and Place, A.R. 2007. Cryptophytes in Chesapeake Bay and their potential relationship to mixotrophic harmful algal blooms. Oral presentation at Fourth Symposium on Harmful Marine Algae in the U.S., Woods Hole, MA Oct.28 – Nov. 1, 2007.

Adolf, J.E. and Place, A.R. 2007. Toxic dinoflagellate blooms in the Inner Harbor, Baltimore MD and a proposal for real-time continuous monitoring of water quality in this highly visible urban environment. Poster presented at the Baltimore Ecosystem Study Annual Meeting, October 17, 2007

***Adolf, J.E.** Cryptophytes drive mixotrophic harmful algal blooms: a hypothesis based on *K. veneficum* as a model harmful algal species. *Invited seminar at Wallops Flight Facility, Jan. 16, 2007*.

Adolf, J.E., Krupatkina, D., Bachvaroff, T., and Place, A.R. The role of karlotoxins in microbe-microbe interactions involving the mixotrophic dinoflagellate, *Karlodinium veneficum*, its prey, and its predators. Gordon Research Conference on Marine Microbes, July 23-28, 2006 University of New England, Biddeford, ME.

Adolf, J.E., Krupatkina, D., Bachvaroff, T., and Place, A.R. Karlotoxins mediate interactions between the mixotrophic dinoflagellate, *Karlodinium veneficum*, its prey, and its predators. Presented (by A.R. Place) at the *12th International Conference on Harmful Algae, Copenhagen Denmark, Sept. 2006*

Adolf, J.E., Bachvaroff, T., Krupatkina, D., Nonogaki, H., and Place, A.R. Variable toxicity in *Karlodinium micrum*: causes, consequences. Oral presentation at UMBI COMB Dec 1, 2005.

Adolf, J.E., W.D. Miller, and L.W. Harding, Jr. 2005. Variability of phytoplankton floral composition and size structure in Chesapeake Bay. Oral presentation at Estuarine Research Federation meeting, Norfolk, VA Oct 16-21, 2005.

Adolf J.E., T.R. Bachvaroff, J.R. Deeds, A. Begum, W. Hosja, T. Reitsema, P. Ringeltaube, M. Robb, A.R. Place. 2005. Ichthyotoxic *Karlodinium micrum* in the Swan River Estuary (Western Australia): an emerging threat in a highly eutrophic estuarine system. Poster presentation at Third Symposium on Harmful Marine Algae in the U.S., Asilomar, CA Oct.2-7, 2005

Adolf, J.E., T.R. Bachvaroff, and A.R. Place. Variable toxicity in *Karlodinium micrum*: causes and consequences. Invited oral presentation given at the Smithsonian Environmental Research Center, Edgewater, MD, March 3, 2005

Adolf, J.E., T.R. Bachvaroff, G.F. Reidel, and A.R. Place. Effects of micro- and macro-nutrient starvation on karlotoxin production in *Karlodinium micrum* strains. Oral presentation given at GEOHAB Open Science Meeting, Baltimore, MD March 7, 2005.

***Adolf J.E.** Chl-*a*, carotenoids and more: looking inside phytoplankton assemblages. *Invited* Oral Presentation given at MD Sea Grant Fellows luncheon, March 18, 2005.

Adolf, **J.E.,** T.R. Bachvaroff, D.N. Krupatkina, H. Nonogaki, A.R. Place, P.J.P. Brown and A.J. Lewitus. Specificity and potential roles of *Karlodinium micrum* toxins (karlotoxins). Oral presentation given at the XI International Symposium on Harmful Algae in Cape Town, South Africa, Nov. 2004.

Adolf, J.E. and L.W. Harding, Jr. Interpreting phytoplankton indicators against a backdrop of high spatial and temporal variability in Chesapeake Bay. Oral, EPA, Duluth, MN, October 2004.

Adolf, J.E., Mallonee, M.E., Miller, W.D., Hoover, M., and Harding, L.W. Jr. Integrating phytoplankton indicators: relationships between phytoplankton floral composition and size structure in Chesapeake Bay, Poster Presentation at EPA all-EAGLES meeting in Duluth, MN, October 2004.

Adolf J.E. Phytoplankton biomass, floral composition, and size structure in Chesapeake Bay. Oral Presentation, Horn Point Laboratory, Cambridge, MD, USA 20 October 2004.

Adolf, J.E., Jordan, C.J., Mallonee, M.E., Miller, W.D., and Harding, L.W. Jr. 2004. Phytoplankton floral composition and primary productivity in Chesapeake Bay. Poster, ASLO – TOS meeting, Honolulu, HI, 15 - 20 Feb 2004.

Adolf, J.E., Mallonee, M.E., Miller, W.D., Hoover, M., Benjamin, J., and Harding, L.W. Jr. Phytoplankton indicators in two differentially impacted sub-estuaries of Chesapeake Bay. Poster, EPA ALL EaGLes meeting, University of California, Bodega Marine Laboratory, Bodega Bay, California, 3-6 Dec 2003.

***Adolf, J.E.** 2003. Photosynthesis and carbon metabolism in the mixotrophic dinoflagellate*, Karlodinium micrum*. Invited seminar, Dept. of Biology, University of Wisconsin, Milwaukee, Wisconsin, 28 Mar 2003.

Adolf, J.E., A.R. Place, D.K. Stoecker, and L.W. Harding, Jr. 2002. Autotrophic and heterotrophic C metabolism during mixotrophic growth of the dinoflagellate *Gyrodinium galatheanum*: ^{14}C tracer studies. Phytoplankton Productivity: An Appreciation of 50 Years of the Study of Oceans and Lakes. Bangor, Wales, UK, 18-22 Mar 2002.

6. ANALYTICAL SKILLS (alphabetical)

CHEMTAX software, flow cytometric analyses of bacteria and phytoplankton (BD FACSCalibur, Accuri C6), FPLC, GC, HPLC, isotope analysis (^{14}C, ^{3}H, ^{32}P), LC-MS, PAM fluorometry, phytoplankton and water quality sampling methods, phytoplankton culture, protein chromatography (Ion exchange, Gel permeation), protein (1D and 2D) and nucleic acid electrophoresis and autoradiography, Surfer software, UV-VIS spectrophotometry. Extensive oceanographic research cruise (>20) experience, coastal and offshore.

7. AWARDS AND GRANTS (including pending and declined applications)

While at UH Hilo

1. Integrated Ocean Observing System, National Ocean Service, National Oceanic and Atmospheric Administration, Department of Commerce, through the National Oceanographic Partnership Program – 'Developing the Pacific Islands Ocean Observing System', Brian Taylor (UHM, SOEST) PI. – Adolf is included as an investigator in charge of one operational (Hilo Bay) and two future-planned real-time continuous monitoring buoys around Hawaii Island. *PENDING*
2. NSF Major Research Instrumentation – "MRI: Acquisition of a Hitachi S-3400N-II Variable Pressure Scanning Electron Microscope with an Analytical Quantitative Element Detector for the University of Hawaii at Hilo" Jason Adolf (PI), Co-PI's Marta deMaintenon, Mazen Hamad, Brian Perry, Steven Lundblad. *AWARDED – Sept 24, 2010* $396,208
3. UH Hilo Research Council SEED grant – "Development of a real-time PCR assay for the toxic dinoflagellate, *Gambierdiscus toxicus*" *AWARDED* $7k
4. NSF Physical Oceanography – "Collaborative Research: Exploring High Chlorophyll Signatures of Anticyclonic Eddies in Oligotrophic Hawaiian Waters" 2009. PI; William Emery (University of Colorado) (Adolf co-PI). *DECLINED*
5. NSF Biological Oceanography: 'Spatial and temporal variability of phytoplankton in Hilo Bay, Hawai'i: a model system of tropical estuarine productivity' Jason E. Adolf (PI). Submitted Aug 15, 2009 *DECLINED*
6. NSF Major Research Instrumentation – Recovery and Reinvestment (R^2): "MRI-R^2: Acquisition of a Hitachi S-3400N-II Variable Pressure Scanning Electron Microscope with an Analytical Quantitative Element Detector for the University of Hawaii at Hilo" Jason Adolf (PI), Co-PI's Marta deMaintenon, Mazen Hamad, Ken Hon, Peter Mills. Submitted August 10, 2009 *DECLINED*
7. NSF EPSCoR: IMUA III: Pacific High Island Evolutionary Biogeography: Impacts of Invasive Species, Anthropogenic Activity and Climate Change on Hawaiian Focal Species. October 24, 2008. James R. Gaines (PI) $20,000,000 (UH System Wide), J.E. Adolf is key personnel in the ENDER program within this grant. *AWARDED*
8. University of Hawaii REAP (2008) Phytoplankton ecology of Hilo Bay. P.I. J. Adolf (J. Michaud, T. Wiegner, and J. Turner Co-PIs). *AWARDED 25k*

While at previous institutions

1. NOAA/ECOHAB (Submitted Oct. 2007), 'The interplay between prey abundance and parasite infection in a mixotrophic HAB – *Karlodinium veneficum.*' PI Allen R. Place, Co-PI Jason Adolf & Holly Bowers, 6/1/08-5/31/11, $460,899. *Declined.*
2. NOAA/ECOHAB (Submitted Oct. 2007),"Effect of Swimming Characteristics of Dinoflagellates on the Structure, Formation and Dispersion of Algal Blooms" PI Joseph Katz, The Johns Hopkins University, Co-PI Jian Sheng, University of Kentucky, Robert Belas, UMBI/COMB, Dan Kamykowski, North Carolina State University, Allen R. Place, UMBI COMB 4/1/08-3/31/11, $708,500 *Declined*
3. NOAA/ECOHAB (Submitted Oct. 2007), **"**Acclimative Resource Allocation and Regulation of Toxicity in *Karlodinium veneficum*" PI Hugh MacIntyre, Dauphin Island Sea Lab, 6/1/08-5/31/11, $393, 148. *Declined*

4. NSF (Submitted Aug. 2007), 'How does cryptophyte biodiversity impact estuarine phytoplankton dynamics?' (Place, A.R.. and Adolf, J.E.) May 2008 – May 2011, $900,000 *Declined*
5. MD Sea Grant 2006 ' Does cryptophyte abundance drive mixotrophic harmful algal blooms? *K. micrum* as a model system' Place, A.R. (P.I.) and Adolf, J.E. (Co-PI). (*Funded*, $211,258; Aug. 2006)
6. Mary Parke Fund, '*Gymnodinium veneficum* (Ballantine) is a *Karlodinium*: Application of new knowledge to understand the type culture of this toxic dinoflagellate', Marine Biological Association Citadel Hill Laboratory, 2006, *funded $880*
7. Western Australia Dept. of Environment / Swan River Trust, (March – April 2005) '*Karlodinium veneficum* in the Swan River Estuary', (I was a visiting scientist with the WA DOE conducting sampling of a natural *Karlodinium* bloom and training their staff on sampling methods for toxin analysis.
8. Co-PI (with Allen Place (PI) and Tsvetan Bachvaroff (co-PI) on 'Consequences and causes of variable toxicity in *Karlodinium micrum* – a cosmopolitan dinoflagellate' funded September 2004, NOAA ECOHAB, 3 years, *funded* $455,000
9. Horn Point Lab (UMCES) DRIF funds proposal (Shimadzu UV-2401 PC Spectrophotometer), *funded* 25k

8. TEACHING EXPERIENCE

Undergraduate courses taught:

1. MARE 201 (Oceanography), University of Hawai'i Hilo Fall 2008 - present
2. MARE 201L (Oceanography Lab), University of Hawai'i Hilo Fall 2010 - present
3. MARE 294b (Applied Methods in Phytoplankton Ecology) University of Hawai'i Hilo, Summer 2009
4. MARE 350 (Coastal Research Methods) University of Hawai'i Hilo Fall 2008 - present
5. MARE 353 (Pelagic Research Methods) University of Hawai'i Hilo Spring 2009 - present
6. MARE 470 (Senior Thesis Research I), University of Hawai'i Hilo Fall 2010
7. MARE 471 (Senior Thesis Research II), University of Hawai'i Hilo Spring 2010
8. MARE 499 (Coastal Phytoplankton of West Hawai'i) University of Hawai'i Hilo Spring 2009 (dir. study)
9. MARE 499 / 699 (Microscopy and Specimen Preparation Technique) Spring 2009 (with M. deMaintenon)
10. MARE 444 (Biological Oceanography) University of Hawai'i Hilo Fall 2009 - present
11. ES 128 (Introduction to Oceanography), Gettysburg College, Gettysburg, PA 2006 - 2008
12. SCI 220 (Introduction to Biotechnology) Sojourner-Douglass College, Baltimore, MD, Fall 2005
13. Teaching Assistant, Biology 101, University of Hawai'i, Manoa, Fall 1993

Students supervised at University of Hawai'i Hilo (undergraduate and graduate (TCBES)
2010
1. Kehau Hagiwara (MARE Senior Thesis)
2. Justin Prast (MARE Senior Thesis)
3. Timothy Glick (MARE Senior Thesis)
4. Gary Francisco (MARE Senior Thesis)
5. Judy Walker (TCBES M.S. Student)
6. Carey Yost (TCBES M.S. Student)

2009
1. Danielle Silver (MARE Senior Thesis) – graduated Spr. 2010
2. Javez Mooteb (MARE Senior Thesis – graduated Spr. 2010
3. Judy Walker (MARE Senior Thesis) co-advised with K. Mcdermid – Graduated Spr. 2010
4. Gillian Wysock (MARE Senior Thesis) co-advised with M. Childers – Graduated Spr. 2010
5. Jessica Manton (TCBES M.S. Student)

2008
1. Supervisor, Topaz Collins, PIPES / Keaholoa Scholar and NSF REU intern, Fall 2008 – Spring 2009

Students supervised at previous institutions

1. Supervisor, Elizabeth Unger and Linwood Terrell (Howard High School), Oct. – Apr. 2007
2. Mentor, Kelly Garton, Walt Whitman HS (Teacher-Intern), 2005
3. Supervisor, Jessica Hayden, St. Mary's College of MD, 2005-2006
4. Mentor, Jennifer Benjamin, Cambridge-South Dorchester High School intern, Fall 2003
5. Advisor, Miranda Hoover, NSF Research Experience for Undergraduates (REU) program, Maryland Sea Grant, Summer 2003

9. PROFESSIONAL SOCIETIES

American Association for the Advancement of Science (AAAS)
American Society for Limnology and Oceanography
Phycological Society of America

10. SERVICES

While at University of Hawai'i Hilo

1. Community Mentor for Keaau HS student, Chloe Frizel, 2009-2010 Science Fair
2. Judge, 2008-2009 Science Fair (*'Imiloa* Astronomy Center of Hawai'i, Feb 14, 2009)
3. Judge, 2008-2009 MARE Awards for Science Fair Projects

While at previous institutions

1. President (2005-2006), Center of Marine Biotechnology '*Et al*' association of postdoctoral scientists and faculty research assistants
2. Chair, Environmental Committee, Linover Improvement Association, Overlea-Fullerton, MD
3. Co-chair of special session, *"Mixotrophic Plankton – Combining phototrophic and heterotrophic nutrition"*, American Society of Limnology and Oceanography, Albuquerque, New Mexico, 12-16 Feb 2001.
4. Advised 6th grade student, Zak Yaffe, '***ALGAE, FERRUM, ET LUX- QUID EST CONNECTIO*?** (Algae, Iron and Light- What is the connection?)', Maret School Science Fair (Washington, D.C.), 2nd place winner

-Reviewer: *Aquatic Ecology*; *Aquatic Microbial Ecology*; *Estuarine, Coastal & Shelf Science*; *European Journal of Phycology*; *Hydrobiologia*, *Journal of Phycology*; *Journal of Plankton Research*; *Marine Biology, NSF (Biological Oceanography)*.