

CURRICULUM VITAE

Andrew Harlan Altieri

Department of Ecology and Evolutionary Biology
Brown University
Providence, RI 02912 USA

Email: Andrew_Altieri@Brown.edu
Phone: 401-378-3635
Fax: 401-863-2166

ACADEMIC PREPARATION

- 2007-Present Brown University, Department of Ecology and Evolutionary Biology
Postdoctoral Research Associate and Instructor
- 2006-2007 Northeastern University, Marine Science Center
Three Seas Postdoctoral Fellow
- 2006 Brown University
Ph.D. in Ecology and Evolutionary Biology
- 1999 University of California Santa Cruz
B.A. in Marine Biology (Honors in the Major)

FELLOWSHIPS AND AWARDS

- 2006 Presidential Award for Excellence in Teaching (Honorable Mention), Brown University.
- 2005 John G. Peterson Fellowship, Brown University. Merit-based award to one graduate student in the Division of Biology and Medicine annually.
- 2004 Faculty Scholar Award, Brown University. Merit-based award to three students in the Graduate School annually.
- 2003 Best Student Paper Award, 84th Annual Western Society of Naturalists Meeting.
- 2003 Luce Graduate Environmental Fellowship, Watson Institute for International Studies
- 2003 Best Student Paper Award, 32nd Annual Marine Benthic Ecology Meeting.
- 2001 Graduate Research Fellowship, National Estuarine Research Reserve System, National Oceanic and Atmospheric Administration.
- 1999 Dean's Award for Undergraduate Research, Division of Natural Sciences, University of California Santa Cruz (UCSC).
- 1999 Honors in the Major, Department of Biology, UCSC.
- 1999 Senior Thesis Honors, Department of Biology, UCSC.
- 1998 President's Undergraduate Fellowship, University of California.
- 1998 Student Research Award, Long Marine Laboratory, UCSC.

PUBLICATIONS

Thomsen, M.S., T. Wernberg, **A. H. Altieri**, F. Tuya, D. Gulbransen, K. McGlathery, M. Holmer, B.R. Silliman (2010) Habitat cascades: the conceptual context and global relevance of indirect positive effects. *Integrative and Comparative Biology* 50: 158-175.

Altieri, A.H., B.K. van Wesenbeeck, M.D. Bertness, and B.R. Silliman (2010) Facilitation cascade explains positive relationship between native biodiversity and invasion success. *Ecology* 91: 1269-1275.

*Selected by the Faculty of 1000 Biology

Bertness, M.D., C. Holdredge, and **A.H. Altieri** (2009) Substrate mediates consumer control of salt marsh cordgrass on Cape Cod, New England. *Ecology* 90: 2108-2117.

Altieri, A.H., G.C. Trussell, P.J. Ewanchuk, G. Bernatchez, and M.E.S. Bracken (2009) Consumers control diversity and functioning in a natural marine ecosystem. *PLoS ONE* 4: e5291.

Holdredge, C., M.D. Bertness, and **A.H. Altieri** (2009) Crab herbivory driven die-off of New England salt marshes. *Conservation Biology* 23: 617-692.

Altieri, A.H. (2008) Dead zones enhance key fisheries species by providing predation refuge. *Ecology* 89: 2808-2818.

*Selected for Ecological Society of America's monthly podcast (*Field Talk*, 10/08).

Van Wesenbeeck, B.K., C.M. Crain, **A.H. Altieri**, and M.D. Bertness (2007) Distinct habitat types arise along a continuous hydrodynamic stress gradient due to the interplay of competition and facilitation. *Marine Ecology Progress Series* 349: 63-71.

Altieri, A.H., B.R. Silliman, M.D. Bertness (2007) Hierarchical organization via a facilitation cascade in intertidal cordgrass bed communities. *American Naturalist* 169: 195-206.

Zabin, C.J. and **Altieri, A.** (2007) A Hawaiian limpet facilitates recruitment of a competitively dominant invasive barnacle. *Marine Ecology Progress Series* 137: 175-185.

Altieri, A.H. (2006) Inducible variation in hypoxia tolerance across the intertidal-subtidal distribution of the blue mussel *Mytilus edulis*. *Marine Ecology Progress Series* 325: 295-300.

Altieri, A.H. and J.D. Witman (2006) Local extinction of a foundation species in a hypoxic estuary: integrating individuals to ecosystem. *Ecology* 87: 717-730.

Van de Koppel, J., **A. H. Altieri**, B.R. Silliman, J. F. Bruno, and M. D. Bertness (2006) Scale-dependent interactions and community structure on cobble beaches. *Ecology Letters* 9: 45-50.

Lindsey, E. L., **A.H. Altieri**, J.D. Witman (2006) Influence of biogenic habitat on the recruitment and distribution of a subtidal xanthid crab. *Marine Ecology Progress Series* 306: 223-231.

Altieri, A.H. (2003) Settlement cues in the locally dispersing temperate cup coral *Balanophyllia elegans*. *Biological Bulletin* 204: 241-245.

Silliman, B.R., C.A. Layman, and **A.H. Altieri** (2003) Symbiosis between an alpheid shrimp and a xanthoid crab in salt marshes of mid-Atlantic states, U.S.A. *Journal of Crustacean Biology* 23: 876-879.

MANUSCRIPTS IN REVIEW OR PREPARATION

Gedan, K.B., **A.H. Altieri**, M.D. Bertness (in review) What is the future of New England marshes?

Holdredge, C., **A.H. Altieri**, B.R. Silliman, M.D. Bertness (in prep) Effects of multiple foundation species interactions on community structure.

Silliman, B.R., M.D. Bertness, **A.H. Altieri**, M.C. Bazterrica, F. Hidalgo, C.M. Crain, M.V. Reyna (in prep) Climatic extremes shift key interactions regulating biodiversity on Patagonian rocky shores.

Altieri, A.H., M.D. Bertness, T.C. Coverdale, N.C. Herrmann, C.Holdredge (in prep) Recreational fishing triggers marsh die-off.

Altieri, A.H. and D.E. Warren (in prep) Metabolic basis for widely differing anoxia tolerance in three North Atlantic bivalves.

(Underline indicates undergraduate author)

GRANTS

- 2009 National Science Foundation, Biological Oceanography, "Is overfishing triggering the die-off of Northeastern US salt marshes", \$491,000. M.D. Bertness and **A.H. Altieri**.
- 2005 American Museum of Natural History, Lerner-Gray Fund for Marine Research, "Quantifying the full impact of oxygen depletion on the dynamics and community composition of a temperate estuary", \$1,800. **A.H. Altieri**.
- 2005 Rhode Island Sea Grant, "Supplement to Quantifying the impact of hypoxia on benthic communities of Narragansett Bay", \$5,500. **A.H. Altieri** and J.D. Witman.
- 2005 Quebec-Labrador Foundation/Atlantic Center for the Environment, Sounds Conservancy, Assessing the full impact of oxygen depletion on the Narragansett Bay estuarine community", \$2,200. **A.H. Altieri**.
- 2003 Watson Institute for International Studies, "Assessing the ecosystem service value of upwelling in the Galapagos", \$5,000. PI: **A.H. Altieri**
- 2003 Rhode Island Sea Grant, "Quantifying the impact of hypoxia on the benthic community of Narragansett Bay", \$66,500. **A.H. Altieri** and J.D. Witman.
- 2002 U.S Environmental Protection Agency, New England Interstate Water Pollution Control Commission, "The effects of water quality degradation on the foundation species blue mussel and the associated benthic community of Narragansett Bay", \$18,200. **A.H. Altieri** and Jon D. Witman.
- 2001 National Oceanic and Atmospheric Administration, "Structuring of the estuarine community by the mussel *Mytilus edulis*", \$51,500. **A.H. Altieri** and Jon D. Witman.

TEACHING EXPERIENCE

- Present Instructor, *Marine Ecology*, Brown University.
- Present Co-instructor, *Coastal Ecology and Conservation*, Brown University
- Present Mentor to undergraduate thesis research, Brown University: Emily Lindsey (2001), Mihir Parikh (2002), Nicholas Horton (2004), Timothy Savage (2007), Daniel MacCombie (2008), Nicholas Herrmann & Tyler Coverdale (Present).
- 2007-2008 Instructor, *Invertebrate Zoology*, Brown University.
- 2007 Lecturer & Coordinator, *Marine Protected Areas Workshop*, Northeastern University (in Moorea, French Polynesia).
- 2006 Instructor, *Marine Invertebrate Zoology*, Northeastern University.
- 2005-2006 Co-instructor, *Tropical Marine Biology*, University of Virginia (in Bahamas).
- 2005 Co-instructor, *Tropical Biology*, Brown University (in Belize).
- 2004 Teaching Certificate in Higher Education, Sheridan Center, Brown University.
- 2000-2005 Teaching Assistant, *Conservation Biology, Principles of Ecology, Invertebrate Zoology, and Animal Biology*, Brown University.
- 1996 Intern, Public Education & Outreach Program, Long Marine Lab, UCSC.

INVITED PRESENTATIONS

- 2010 American Physiological Society, Global Change and Global Science
- 2010 University of Groningen, Center for Ecological and Evolutionary Studies
- 2010 Netherlands Institute of Ecology, Center for Estuarine and Coastal Ecology
- 2010 University of Massachusetts – Boston, Department of Biology
- 2010 Texas A&M University – Corpus Christi, Department of Life Sciences
- 2009 Coastal and Estuarine Research Federation, Hypoxia Impacts on Coastal Ecosystems
- 2009 Boston University, Department of Biology
- 2008 Harvard University, Harvard Forest
- 2008 Florida International University, Department of Biological Sciences
- 2007 San Diego State University, Department of Biology
- 2007 NOAA – Ecological Impact of Hypoxia on Living Resources Symposium & Workshop
- 2007 University of California Davis, Center for Population Biology
- 2007 University of Rhode Island, Graduate School of Oceanography
- 2006 Save the Bay (Narragansett Bay region's largest restoration and outreach NGO)
- 2006 U.S. Environmental Protection Agency, New England Regional Office
- 2006 University of Rhode Island, Department of Biological Sciences
- 2006 University of New Hampshire, Department of Natural Resources
- 2005 University of California Davis, Bodega Marine Laboratory
- 2005 Duke University Marine Laboratory
- 2005 3rd Annual Ronald C. Baird Sea Grant Science Symposium on RI Coastal Ecosystems
- 2002 Northeastern University, Marine Science Center

CONTRIBUTED PRESENTATIONS (recent 6 years)

Altieri, A.H., B.K. van Wesenbeeck, M.D. Bertness, B.R. Silliman (2010) Facilitation cascade drives positive relationship between biodiversity and invasion success. 39th Annual Marine Benthic Ecology Meeting.

Coverdale, T.C., N.C. Herrmann, M.D. Bertness, **A.H. Altieri** (2010) Historical development of Cape Cod marshes triggers current runaway herbivory and marsh die-off.

N.C. Herrmann, Coverdale, T.C., N.C. Herrmann, **A.H. Altieri** M.D. Bertness, (2010) Cordgrass die-off in Cape Cod salt marshes leads to loss of important ecosystem services.

Altieri, A.H., G.C. Trussell, P.J. Ewanchuk, G. Bernatchez, and M.E.S Bracken (2009) Consumers control diversity and functioning of a natural marine ecosystem. 38th Annual Marine Benthic Ecology Meeting.

Altieri, A.H. (2008) Dead zones enhance a vital shellfishery species by providing a predation refuge. 37th Annual Marine Benthic Ecology Meeting.

Holdredge, C., M.D. Bertness, and **A.H. Altieri** (2008) Crab herbivory drives cordgrass die-off in New England salt marshes. 37th Annual Marine Benthic Ecology Meeting.

Altieri, A.H. (2007) Dead zones – good or bad? Hypoxia provides a predation refuge for a vital fisheries species. 92nd Annual Ecological Society of America Meeting.

Altieri, A.H., B.K. van Wesenbeeck, B.R. Silliman, and M.D. Bertness (2007) A facilitation cascade boosts invasive crab populations. 36th Annual Marine Benthic Ecology Meeting.

Holdredge, C., M.D. Bertness, and **A.H. Altieri** (2007) Human disturbance triggers increased consumer pressure and cordgrass die-back in Cape Cod, MA. 19th Biennial Coastal and Estuarine Research Federation Meeting. *Awarded Best Undergraduate Presentation.

Altieri, A.H., B.R. Silliman, M.D. Bertness (2005) *Spartina alterniflora* facilitates rocky shore mussel reefs through a hierarchy of positive interactions. 90th Annual Ecological Society of America Meeting.

Altieri, A.H., B.R. Silliman, M.D. Bertness (2005) Facilitation of intertidal mussel reefs by cordgrass (*Spartina alterniflora*) on New England cobblestone beaches. 34rd Annual Marine Benthic Ecology Meeting.

(Underline indicates undergraduate author)

WORK EXPERIENCE

2000 Research Assistant for Dr. Michael Hadfield, University of Hawaii.
Field site: Oahu, Hawaii. Intertidal ecology of invasive organisms.

1999-2000 Research Assistant for Drs. Robin Ross and Langdon Quetin,
University of California Santa Barbara. Field site: Antarctic Peninsula.
Climate change and productivity of pelagic food-webs.

- 1999 Intern with Dr. Richard Wahle, Bigelow Laboratory for Ocean Sciences.
Field site: Coastal New England. Habitat as a bottleneck for lobster populations.
- 1998 Research Assistant for Drs. Mark Carr and Mark Hixon, University of California Santa Cruz and Oregon State University. Field site: Bahamas.
Regulation of reef fish populations by functional diversity.
- 1997 Research Assistant for Dr. Peter Raimondi, University of California Santa Cruz. Field site: Bonaire, Netherland Antilles.
Life-history ecology of endangered reef-building corals.
- 1997 Research Assistant for Dr. Diana Steller, University of California Santa Cruz.
Field site: Baja California Sur, Mexico. Rhodolith beds as foundation species.

MEDIA COVERAGE

- Newspaper article by Carolyn Johnson, *Boston Globe* (Crabs may be killing Cape Cod's marshes, 7/6/10).
- Newspaper article by Daniel Gibson-Reinemer, *Annapolis Capital-Gazette* (Clams find refuge in 'dead zones' 12/06/2/08).
- Television news feature by Mario Hilario, *NBC-Affiliate WJAR* (11/1/08).
- Ecological Society of America's monthly Field Talk podcast (Dead Zones as Safe Havens 10/08). <http://www.esa.org/fieldtalk/?m=200810>
- Newspaper article by Peter Lord, *Providence Journal* (Narragansett Bay's dead zones boon to quahogs, 10/26/08).
- Radio interview with Costas Halavrezos, *Canadian Broadcasting Corporation* (Maritime Noon, 10/17/08).
- Radio news broadcast by Steve Klamkin, *WPRO* (10/16/08).
- Newspaper article by Bob Holmes, *New Scientist* (When Co-operation is the Key to Survival, 2/7/07).
- Newspaper article by Elizabeth Williamson, *Washington Post* (R.I. Shellfish Offer Clue to Health of Chesapeake, 5/8/06). Featured by *Seattle Times*.
- Newspaper staff editorial, *Providence Journal* (Bay's Warning Siren, 4/14/06).
- Television news feature by R.J. Heim, *NBC-Affiliate WJAR* (4/12/06).
- Newspaper article by Peter Lord, *Providence Journal* (Study: Bay Lost Billions of Mussels, 4/12/06).
- News article by Ray Henry, *Associated Press* (Algae Blooms Kill One of Narragansett Bay's Best Natural Filters, 4/11/06). Featured by *Boston Globe*, *Knoxville News Sentinel*, *Scripps Howard News Service*, *Westerly Sun*.
- News article, *United Press International* ("Dead Zone" Kills Billions of Mussels, 4/11/06). Featured by Science Daily, NewKerala.com, DailyIndia.com.

PROFESSIONAL AFFILIATIONS

American Association for the Advancement of Science, American Association of Underwater Scientists, Ecological Society of America, Estuarine Research Federation, New England Estuarine Research Society, Sigma Xi, Western Society of Naturalists.

REFERENCES

Dr. Mark Bertness (Present Postdoc Advisor)

Department of Ecology and Evolutionary Biology, Brown University

Box G-W, Brown University, Providence, RI 02912 USA

Email: mark_bertness@brown.edu Phone: 401-863-2280 Fax: 401-863-2166

Dr. Geoffrey Trussell (Previous Postdoc Advisor)

Marine Science Center, Northeastern University

430 Nahant Rd., Nahant, MA 01908 USA

Email: g.trussell@neu.edu Phone: 781-581-7370 ext. 300 Fax: 781-581-6076

Dr. Jon Witman (Major Ph.D. Advisor)

Department of Ecology and Evolutionary Biology, Brown University

Box G-W, Brown University, Providence, RI 02912 USA

Email: jon_witman@brown.edu Phone: 401-863-3936 Fax: 401-863-2166

Dr. Johan van de Koppel (Collaborator)

Netherlands Institute of Ecology, Centre for Estuarine and Coastal Ecology

P.O. Box 140, 4400AC Yerseke, The Netherlands.

Email: J.vandeKoppel@nioo.knaw.nl Phone: 31 (0)113 577455 Fax: 31 (0) 113 573616