

## John R. Wiedenmann

Institute of Marine and Coastal Sciences  
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### Education

**Ph.D.** – *University of California, Santa Cruz, 2010*

Major: Ocean Sciences

Dissertation: Implications of climate change for the biomass of Antarctic krill and their cetacean predators.

**M.S.** – *University of Washington, Seattle, 2004*

Major: Aquatic and Fishery Sciences

Thesis: Evidence of density-dependent age-1 recruitment in bluefish, *Pomatomus saltatrix*, in the northwest Atlantic

**B.S.** – *University of New Hampshire, 2001*

Major: Zoology

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### Professional Experience

**Assistant Research Professor**, Institute of Marine and Coastal Sciences, Rutgers University, New Brunswick, NJ. 9/1/2011 – present.

**Assistant Research Scientist**, Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science, Solomons, MD. 7/1/2010 – 9/30/2012.

**Research Fisheries Biologist**, Marine Resource Assessment Group, Americas, Tampa, FL. 4/1/2010 – 5/31/11

**Graduate Research Assistant**, UC Santa Cruz, 9/28/2006 – 3/31/2010

**Research Consultant**, Marine Resource Assessment Group, Americas, Tampa, FL. 10/1/2004 – 8/31/2006

**Graduate Research Assistant**, University of Washington, 8/22/2002 – 7/31/2004

**Research Assistant** (groundfish movement patterns, flounder stock enhancement, skate reproductive biology), University of New Hampshire, 6/1/2001 – 8/1/2002.

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### Peer-reviewed Publications

Wiedenmann, J., Wilberg, M., and T. Miller. Evaluation of harvest control rules for data poor fisheries. 2013. *North American Journal of Fisheries Management*. 33: 845-860.

- Wilberg, M., Wiedenmann, J., and J. Robinson. 2013. Sustainable exploitation and management of autogenic ecosystem engineers: application to oysters in Chesapeake Bay. *Ecological Applications*. 24: 766-776.
- Cresswell, K., Wiedenmann, J. and M. Mangel. 2012. A model of parental conflict: Predicting provisioning behavior of penguins in response to local changes in krill. *Ecological Modelling* 246: 68-78.
- Wiedenmann, J., Cresswell, K., Goldbogen, J., Potvin, J. and M. Mangel. 2011. Exploring the effects of reductions in krill biomass in the Southern Ocean on blue whales using a state-dependent foraging model. *Ecological Modelling* 222: 3366-3379.
- Bednarek, A.T., Cooper, A.B., Cresswell, K.A., Mangel, M., Satterthwaite, W.H., Simpfendorfer, C.A. and J. Wiedenmann. 2011. The certainty of uncertainty in marine conservation and what to do about it. *Bulletin of Marine Science* 82: 177-195.
- Mangel, M., Cresswell, K., Richerson, K. and J. Wiedenmann. 2010. Modelling the Effects of UV Radiation on the Survival of Antarctic Krill (*Euphausia superba* Dana) in the Face of Limited Data. *Ecological Modelling* 221:2095-2101.
- Brown, V., Gutknecht, J., Harden, L., Harrison, C., Hively, D., Jorgenson, C., Levi, T., Pflugeisen, B., Rovegno, P., Wang, Y., Wiedenmann, J. and M. Mangel. 2010. Understanding and engaging values in policy relevant science. *Bulletin of the British Ecological Society* 41: 48-56.
- Wiedenmann, J., Fujiwara, M. and M. Mangel. 2009. Transient population dynamics and viable stage or age distributions for effective conservation and recovery. *Biological Conservation* 42: 2990-2996.
- Cresswell, K., Tarling, G.A., Thorpe, S.E., Burrows, M.T., Wiedenmann, J. and M. Mangel. 2009. Vertical migration of Antarctic krill (*Euphausia superba*) is flexible during advection across the Scotia Sea. *Journal of Plankton Research* 31: 1265-1282.
- Wiedenmann, J., Cresswell, K. and M. Mangel. 2009. Connecting recruitment of Antarctic krill and sea ice. *Limnology and Oceanography*. 54: 799-811.
- Wiedenmann, J., Cresswell, K., and M. Mangel. 2008. Temperature dependent growth of Antarctic krill: predictions for a changing climate from a cohort model. *Marine Ecology Progress Series* 358: 191-202.
- Cresswell, K., Wiedenmann, J. and M. Mangel. 2008. Can macaroni penguins keep up with climate and fishing induced changes in krill? *Polar Biology* 31: 641-649.

Wiedenmann, J. and T. E. Essington. 2006. Density dependent overwinter survival in young-of-year bluefish (*Pomatomus saltatrix*): A new approach for assessing stage-structured survival. *Canadian Journal of Fisheries and Aquatic Sciences* 63: 1934-1943.

Essington, T.E., Beaudreau, A.H. and J. Wiedenmann. 2006. Fishing through marine food webs. *Proceeding of the National Academy of Sciences* 103: 3171-3175.

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## In-preparation Manuscripts

Wiedenmann, J., Wilen, J., Levin, P., Plummer, M. and M. Mangel. A framework for exploring the bioeconomic causes and consequences of ecosystem fishing patterns. *In prep.*

Wiedenmann, J. and M. Wilberg. Evaluating the management and regulatory options fro the summer flounder recreational fishery. *In prep*

Wiedenmann, J., M. Wilberg, A. Salute, and T. Miller. Autocorrelated error in stock assessment models: Implications for management strategy evaluations. *In prep.*

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## Technical Reports

Limburg, K., Olivera, K., Wiedenmann, J. and B. O'Boyle. 2012. Terms of Reference and Advisory Report of the American Eel Stock Assessment Peer Review. Report the Atlantic States Marine Fisheries Commission.

Limburg, K., Olivera, K., Wiedenmann, J. and B. O'Boyle. 2012. Terms of Reference and Advisory Report of the River Herring Stock Assessment Peer Review. Report the Atlantic States Marine Fisheries Commission.

Wilberg, M. J., Miller, T. J. and J. Wiedenmann. 2011. Evaluation of acceptable biological catch (ABC) control rules for mid-Atlantic stock. Final report to the Mid-Atlantic Fishery Management Council.

Dick, E.J., Ralston, S., Pearson, D. and J. Wiedenmann. 2009. Updated status of cowcod, *Sebastes levis*, in the Southern California Bight. Final report to the Pacific Fishery Management Council.

Wiedenmann, J. and M. Mangel. 2007. Rebuilding Fisheries. Phase 2. Identifying Situations of Special Concern. Final report to the Lenfest Ocean Program.

Wiedenmann, J. and K. Doctor. 2005. A guide to estimating fish production on artificial reefs. Final report to the California Coastal Commission.

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## Presentations

Wiedenmann, J. Sustainable management of marine resources: from the U.S. to Antarctica. Invited talk to the Northeast Fisheries Science Center / UMASS Dartmouth School for Marine Science and Technology, 8/26/13

Wiedenmann, J. Sustainable harvest policies for U.S. fisheries: from catch limits to size and bag limits. Invited talk to the Virginia Institute of Marine Sciences, 3/26/13.

Wiedenmann, J. Modeling human impacts of marine populations: from climate change to catch limits. Invited talk to the School of Marine and Atmospheric Sciences, SUNY Stony Brook, 4/30/12.

Wiedenmann, J. Modeling human impacts of marine populations: from climate change to catch limits. Invited talk to the Department of Environmental Conservation, UMASS Amherst, 4/5/12.

Wiedenmann, J. Change in the Southern Ocean ecosystem: from ice to krill to whale. Invited talk Rutgers Department of Ecology and Evolution Graduate Program Seminar Series, 10/28/11.

Wiedenmann, J., M. Wilberg, and T. Miller. 2011. An evaluation of data poor harvest control rules. American Fisheries Society annual meeting, Seattle, WA.

Wiedenmann, J., M. Wilberg, and T. Miller. 2011. An evaluation of data poor harvest control rules. Mid Atlantic Fishery Management Council ABC Control Rule Steering Committee Meeting, 3/7/2011.

Wiedenmann, J. 2006. Rebuilding Fisheries: The impact of a skewed age distribution on long-term recovery. Poster. Mote Symposium, 11/13/2006.

Wiedenmann, J. and T.E. Essington. 2004. Density-dependence in the juvenile stage of bluefish. American Fisheries Society Annual Meeting, 8/23/2004.

Wiedenmann, J. and T.E. Essington. 2003. What happened to all the little bluefish? Density-dependent mortality, that's what. University of Washington, School of Aquatic and Fishery Sciences Graduate Student Symposium. 10/15/2003.

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## Teaching

**Instructor** for a workshop on stock assessment methods for graduate students (co-taught with Olaf Jensen of Rutgers University). The objective of this workshop was to teach graduate students about stock assessments and general estimation methods using AD Model Builder. 2/15/2014-2/16/2015.

**Instructor** for the Data-Poor Stock Assessment Workshop, Philadelphia PA. The objective of this workshop was to teach methods for setting catch limits for data-poor species to employees of state agencies under the jurisdiction of Atlantic States Marine Fisheries Commission. 9/24/2012-9/26/2012.

**Assistant Instructor** for an AD Model Builder programming workshop, Providence, RI. The objective of this workshop was to teach AD Model Builder programming to employees of state agencies under the jurisdiction of Atlantic States Marine Fisheries Commission. 7/18/2011-7/21/2011.

**Guest Lecturer** for an undergraduate course entitled Marine Policy. Rutgers University, Spring Semester, 2012.

**Graduate Teaching Assistant** for the discussion section of an undergraduate course entitled *Our Changing Planet*. Assisted students in learning about the causes and consequences of both natural and anthropogenic climate change. University of California, Santa Cruz, Fall Quarter, 2008.

**Graduate Teaching Assistant** for the laboratory section of an undergraduate course entitled *Life in the Sea*. Set up and ran lab sections aimed at teaching students about general topics in marine biology. University of California, Santa Cruz, Fall Quarter, 2006.

**Undergraduate Teaching Assistant** for an undergraduate course entitled *Ornithology*. Set up and ran laboratory sections teaching students bird identification techniques. University of New Hampshire, Spring Semester, 2000 and 2001.

**Undergraduate Teaching Assistant** for an undergraduate course entitled *General Ecology*. Assisted in laboratory sections teaching students about the collection and analysis of data to answer ecological questions. University of New Hampshire, Fall Semester, 2000.

**Undergraduate Teaching Assistant** for an undergraduate course entitled *Vertebrate Morphology*. Assisted in laboratory sections teaching students about the comparative morphology of vertebrates. University of New Hampshire, Fall Semester, 2000.

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## Grants and Awards

University of California Regent's Fellowship, 2006.

Woodward, R.T. (principal investigator), Tomberlin, D., Wilberg, M.J., and J. Wiedenmann (co-principal investigators). Robust ecosystem-based management of the Chesapeake Bay blue crab fishery. 2012. \$100,000 funded by Maryland Sea Grant.

Wilberg, M. (principal investigator), Miller, T. and J. Wiedenmann (co-principal investigators). An evaluation of ABC harvest control rules. 2012. \$342,262 funded by NOAA.

Wiedenmann, J. Evaluation of the effects of uncertainty in estimates of recreational fisheries landings. 2012. \$42,222. Funded by the Atlantic Coastal Cooperative Statistics Program (ACCSP).

Wiedenmann, J (principal investigator), and O. Jensen (co-principal investigator). Determining Sustainable Catch Limits for Data-Poor Fisheries in New Jersey 2014-2015. \$80,000. Funded by NJ Sea Grant.

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## Service

Peer reviewer for *Ecological Applications*, *Fisheries Research*, *Marine and Coastal Fisheries*, *Fisheries Oceanography*, *Oecologia*, *Journal of Theoretical Biology*, *Biological Conservation*, *Marine Ecology Progress Series*, Maryland Sea Grant, and NOAA

Stock assessment reviewer for the Atlantic States Marine Fisheries Commission

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## References

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