



CURRICULUM VITAE

PORTER HOAGLAND

Public Policy
Senior Research Specialist
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Date of Birth: October 9, 1955
Place of Birth: Red Bank, New Jersey
Nationality: United States of America

EDUCATION:

Ph.D., Marine Policy, University of Delaware, January 2000
M.P.A., Public Administration, Harvard University, May 1993
M.M.P., Marine Policy, University of Delaware, June 1982
B.S., Biology, Hobart College, June 1977

RESEARCH INTERESTS:

Economics and public policy of marine resources and the ocean environment; optimal management of ocean and coastal resources and their uses; distribution and allocation of property rights in ocean and coastal resources; economic impacts of marine natural hazards; technology transfer and intellectual property problems; marine science and technology policy; underwater archaeological resource management.

PROFESSIONAL EXPERIENCE:

Senior Research Specialist, Woods Hole Oceanographic Institution, 2008 to present
Research Specialist, Woods Hole Oceanographic Institution, 2000-08
Research Associate, Woods Hole Oceanographic Institution, 1985-2000
Research Assistant, Woods Hole Oceanographic Institution, 1983-84
Conservation Intern, National Wildlife Federation, 1982
Research Intern, Environmental Law Institute, 1981
Research Assistant, College of Marine Studies, University of Delaware, 1981-82
Administrative Legal Assistant, Howrey and Simon, 1979-80
Paralegal, Howrey and Simon, 1977-79

AWARDS:

Cooperative Institute for North Atlantic Research (CINAR) Fellowship, 2013-15
Frances Severance Award for Dissertation in Public Policy, University of Delaware, 2000
Marine Policy Program Fellow, College of Marine Studies, University of Delaware, 1993-94
Crump Fellow, Center for Business and Government, Harvard University, 1992
E. Sam Fitz Professional Development Award, University of Delaware, 1983
Academic Council Award for Master's Thesis in Marine Policy, University of Delaware, 1982

PROFESSIONAL ACTIVITIES:

Adjunct Professor, Department of Marine Affairs, University of Rhode Island, 2012 to present
Adjunct Professor, Intercampus Graduate School of Marine Sciences and Technology,
University of Massachusetts, 2000 to present
Advisor, Institute Advisory Committee, WHOI Coastal Ocean Institute, 2001 to present
Advisor, WHOI Office for Applied Oceanography, 2009 to present
Editorial Advisory Board, *Encyclopedia of Ocean Sciences*, Academic Press, 2001 to present
Member, International Institute of Fisheries Economics and Trade, 2007 to present
Member, Marine Technology Society, 1996 to present
Research Associate, Center for Maritime & Underwater Resource Management, East Lansing,
Michigan, 1995 to present
Member, National Harmful Algal Bloom Committee, 2006-13
Adjunct Professor, The Union Institute, Cincinnati, Ohio, 2001-08
Advisor, Stellwagen Bank National Marine Sanctuary Advisory Committee, 2007-2010
(Alternate Advisor 2001-2007)
Member, Steering Committee, National Scientific Research, Development, Demonstration, and
Technology Transfer Plan on Reducing Impacts from Harmful Algal Blooms, 2006-2007
Director, Board of Directors, Council on Ocean Law, 1995-2005
Chairman, Marine Resources Division, Marine Technology Society, 1996 to 2004
Chairman, Ecosystem Alteration Working Group, Stellwagen Bank National Marine Sanctuary,
2004
Chairman, Site Characterization Working Group, Stellwagen Bank National Marine Sanctuary,
2003-2004
Member, Panel on Peer Review, Committee to Assess the US Army Corps of Engineers
Methods of Analysis and Peer Review for Water Resources Project Planning, National
Research Council, 2001-2002
Member, Working Group on the Economic Aspects of Marine Mammal-Fisheries Interactions,
North Atlantic Marine Mammal Commission, 2000
Member, Steering Committee, Massachusetts Ocean Resources Roundtable, Massachusetts
Office of Coastal Zone Management, 1997-98
Member, Massachusetts Governor's Task Force on Aquaculture Development and Marketing,
1995
Advisor, Plymouth Beaches Advisory Committee (Vice-Chairman 1992-93), Town of Plymouth,
Massachusetts, 1990-93

REFEREE:

Biodiv. Conserv.; *Clim. Change*; *Coast. Manag.*; *Conserv. Bio.*; *Ecol. Econ.*; *Ecol. Food Nutr.*; *Environ. Dev. Econ.*; *Environ. Conserv.*; *Environ. Manag.*; *Environ. Mod. Softw.*; *Fish.*; *Fish. Res.*; *Harm. Alg.*; *ICES J. Mar. Sci.*; *Int'l Inst. Fish. Econ. Tr.*; *J. Coast. Res.*; *J. Environ. Dev.*; *J. Environ. Econ. Manag.*; *J. Environ. Manag.*; *J. Geog. Reg. Plan.*; *J. Oc. Univ. China*; *Mar. Pol'y*; *Mar. Poll. Bull.*; *Mar. Res. Econ.*; *Mar. Tech. Soc. J.*; *Nat. Resour. Res.*; *Oc. Coast. Manag.*; *Oc. Dev. Int'l L.*; *Oc. Yearbook*; *Resour. Pol'y*; *Science*; *ScienceNOW*; *Sustainability*.

PAPERS IN REFEREED JOURNALS:

- Davidson K, Gowen RJ, Harrison PJ, Fleming LE, **Hoagland P**. 2014. Anthropogenic nutrients and harmful algae in coastal waters. *J. Environ. Manag.* (forthcoming).
- Hoagland P**, Jin D, Beet A, Kirkpatrick B, Reich A, Ullmann S., Fleming LE, Kirkpatrick G. 2014. The human health effects of Florida red tides: an expanded analysis. *Environ. Int'l.* 68:144-153. <http://dx.doi.org/10.1016/j.envint.2014.03.016>.
- Kirkpatrick B, Kohler K, Byrne M, Fleming LE Scheller K, Reich A, Hitchcock G, Kirkpatrick G, Ullman S, **Hoagland P**. 2014. Human responses to Florida red tides: policy awareness and the effectiveness of local fertilizer ordinances. *Sci. Tot. Environ.* (forthcoming).
- Hoagland P**, Kite-Powell HL, Jin D, Solow AR. 2013. Supply-side approaches to the economic valuation of coastal and marine habitat in the Red Sea. *J. King Saud Univ.-Sci.* 25:217-228. <http://dx.doi.org/10.1016/j.jksus.2013.02.006>.
- Jin D, Ashton A, **Hoagland P**. 2013. Optimal responses to shoreline changes: an integrated economic and geological model with application to curved coasts. *Nat. Res. Model* 26:572-604. <http://onlinelibrary.wiley.com/doi/10.1111/nrm.12014/abstract>.
- Jin D, **Hoagland P**, Wikgren B. 2013. An empirical analysis of the economic value of ocean space associated with commercial fishing. *Mar Pol'y* 42:74-84.
- Hoagland P**, Jin D, Kite-Powell HL. 2012. The costs of beach replenishment along the US Atlantic coast. *J. Coast. Res.* 28:199-204. <http://dx.doi.org/10.2112/JCOASTRES-D-11-00066.1>.
- Jin D, **Hoagland P**, Dalton TM, Thunberg EM. 2012. Development of an integrated economic and ecological framework for ecosystem-based fisheries management in New England. *Prog. Oceanog.* 102:93-101. <http://dx.doi.org/10.1016/j.pocean.2012.03.007>.
- Jin D, Kite-Powell HL, **P. Hoagland P**, Solow AR. 2012. A bioeconomic analysis of traditional fisheries in the Red Sea off the coast of the Kingdom of Saudi Arabia. *Mar. Res. Econ.* 27:127-138. <http://dx.doi.org/10.5950/0738-1360-27.2.137>.
- Fleming LE, Kirkpatrick B, Backer LC, Walsh CJ, Nierenberg K, Clark J, Reich A, Hollenbeck J, Benson J, Cheng YS, Naar J, Pierce R, Bourdelais AJ, Abraham WM, Kirkpatrick G, Zaias J, Wanner A, Mendes E, S, **Hoagland P**, Stephan W, Bean J, Watkins S, Clarke T, Byrne M, Baden DG. 2010. Literature review of Florida red tide: implications for human health effects. *Harm. Alg.* 3:99-115. <http://dx.doi.org/10.1016/j.hal.2010.08.006>.
- Hoagland P**. 2010. A (social) scientific look at ecosystem-based management. *Oc. Coast. L. J.* 15:167-175. <http://mainelaw.maine.edu/academics/oclj/vol-15-no-1.html>.
- Hoagland P**, Beaulieu S, Tivey MA, Eggert RG, German C, Glowka L, Lin J. 2010. Deep-sea mining of seafloor massive sulfides. *Mar. Pol'y* 34:728-732. <http://dx.doi.org/10.1016/j.marpol.2009.12.001>.
- Nierenberg K, Kirner K, **Hoagland P**, Ullmann S, LeBlanc WG, Kirkpatrick G, Fleming LE, Kirkpatrick B. 2010. Changes in work habits of lifeguards in relation to Florida red tide.

- Harm. Alg.* 9:419-425. <http://dx.doi.org/10.1016/j.hal.2010.02.005>. [Corrigendum: *Harm. Alg.* 9:647. <http://dx.doi.org/10.1016/j.hal.2010.05.003>.]
- Bauer, M., **P. Hoagland**, T.M. Leschine, B.G. Blount, C.M. Pomeroy, L.L. Lampl, C.W. Scherer, D.L. Ayres, P.A. Tester, M.R. Sengco, K.G. Sellner, and J. Shumacker. 2009. The importance of human dimensions research in managing harmful algal blooms. *Front. Ecol. Environ.* doi:10.1890/070181. <http://www.esajournals.org/doi/pdf/10.1890/070181>.
- Hoagland, P.**, D. Jin, L.Y. Polansky, B. Kirkpatrick, G. Kirkpatrick, L.E. Fleming, A. Reich, S.M. Watkins, S.G. Ullmann and L.C. Backer. 2009. The costs of respiratory illnesses arising from Florida Gulf Coast *Karenia brevis* blooms. *Environ. Health Persp.* 117:1239-1243. <http://ehp.niehs.nih.gov/docs/2009/0900645/abstract.html>.
- Kite-Powell, H.L., L.E. Fleming, L.C. Backer, E.M. Faustman, **P. Hoagland**, A. Tsuchiya, L.R. Younglove, B.A. Wilcox and R.J. Gast. 2008. Linking the oceans to public health: current efforts and future directions. *Environ. Health J.* 7(Supp. 2):S6. <<http://www.ehjournal.net/supplements/7/S2>>.
- Jin, D. and **P. Hoagland**. 2008. The value of HAB predictions to the commercial shellfish fishery in the Gulf of Maine. *Harm. Alg.* 7:772-781. <http://dx.doi.org/10.1016/j.hal.2008.03.002>.
- Jin, D., E. Thunberg and **P. Hoagland**. 2008. Economic impact of the 2005 red tide event on commercial shellfish fisheries in New England. *Oc. Coast. Manag.* 51:420-429. <http://dx.doi.org/10.1016/j.ocecoaman.2008.01.004>.
- Hoagland, P.** and D. Jin. 2007. Accounting for marine economic activities in large marine ecosystems. *Oc. Coast. Manag.* 51:246-258. <http://www.sciencedirect.com/science/journal/09645691>.
- Jin, D., H.L. Kite-Powell and **P. Hoagland**. 2007. Anticipating the growth of an open-ocean aquaculture industry. *Aquacult. Econ. Manag.* 11:225-242.
- Hoagland, P.** and D. Jin. 2006. Science and economics in the management of an invasive species. *BioSci.* 56:931-935. <http://hdl.handle.net/1912/1363>.
- Herrera, G. and **P. Hoagland**. 2006. Commercial whaling, tourism, and boycotts: an economic perspective. *Mar. Pol'y* 30:261-269. <http://dx.doi.org/10.1016/j.marpol.2004.12.005>.
- Jin, D., **P. Hoagland** and A.R. Solow. 2006. The economic value of environmental research in understanding the relative contributions of sources of nutrients to coastal waters. *Nat. Res. Model.* 19:201-220. <http://dx.doi.org/10.1111/j.1939-7445.2006.tb00180.x>. [WHOI Contrib. No. 11,296.]
- Jin, D., **P. Hoagland** and E. Thunberg. 2006. An analysis of the relationship between the fish harvesting and processing sectors in New England. *Mar. Res. Econ.* 21:47-62.
- Hoagland, P.** and A.R. Solow. 2005. Regional ocean governance: a critique of two recent proposals. *Mar. Tech. Soc. J.* 38:61-67. [WHOI Contrib. No. 11,301.]

- Jin, D., H.L. Kite-Powell and **P. Hoagland**. 2005. Risk assessment in open-ocean aquaculture: a firm-level investment-production model. *Aquacult. Econ. Manag.* 9:369-387. <http://dx.doi.org/10.1080/13657300500242261>. [WHOI Contrib. No. 11,394.]
- Hoagland, P.**, D. Jin and H.L. Kite-Powell. 2003. The optimal allocation of ocean space: aquaculture and wild harvest fisheries. *Mar. Res. Econ.* 18:129-147. [WHOI Contrib. No. 10,932.]
- Jin, D., **P. Hoagland** and T.M. Dalton. 2003. Linking economic and ecological models for a marine ecosystem. *Ecol. Econ.* 46:367-385. <http://dx.doi.org/10.1016/j.ecolecon.2003.06.001>. [WHOI Contrib. No. 10,705.]
- Steele, J.H. and **P. Hoagland**. 2003. Are fisheries "sustainable"? *Fish. Res.* 64:1-3. <http://dx.doi.org/10.1016/j.fishres.2003.08.001>. [WHOI Contrib. No. 11,004.]
- Hoagland, P.**, D.M. Anderson, Y. Kaoru and A.W. White. 2002. The economic effects of harmful algal blooms in the United States: estimates, assessment issues, and information needs. *Estuar. Coast.* 25:677-695. <http://dx.doi.org/10.1007/BF02804908>. [WHOI Contrib. No. 10,637.]
- Kite-Powell, H.L., **P. Hoagland** and D. Jin. 1998. Policy, law, and public opposition: the prospects for abyssal ocean waste disposal in the United States. *J. Mar. Sys.* 14:377-396. [http://dx.doi.org/10.1016/S0924-7963\(97\)00036-5](http://dx.doi.org/10.1016/S0924-7963(97)00036-5). [WHOI Contrib. No. 9053.]
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- Schumacher, M., **P. Hoagland** and A.G. Gaines. 1996. Land-based marine pollution in the Caribbean: incentives and prospects for an effective regional protocol. *Mar. Pol'y* 20:99-121. [http://dx.doi.org/10.1016/S0308-597X\(95\)00044-7](http://dx.doi.org/10.1016/S0308-597X(95)00044-7). [WHOI Contrib. No. 9002.]
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- Hoagland, P.** 1992. Measuring voting power on the Council of the International Seabed Authority. *Oc. Pol'y Res. (Korea)* 7:251-276. [WHOI Contrib. No. 8124.]
- Hoagland, P.** and H.L. Kite-Powell. 1991. European advanced marine electronic instrumentation: A U.S. perspective. *Mar. Pol'y* 15:431-454. [http://dx.doi.org/10.1016/0308-597X\(91\)90052-D](http://dx.doi.org/10.1016/0308-597X(91)90052-D). [WHOI Contrib. No. 7785.]
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CHAPTERS IN BOOKS:

- Hoagland P.** 2014. Coupled nature-human (CNH) systems: generic aspects of human interactions with blooms of Florida red tide (*Karenia brevis*) and implications for policy responses. In Rossini GP, ed., *Toxins and Biologically Active Compounds from Microalgae*. Vol. 2: Biological Effects and Risk Management. Boca Raton, FL: CRC Press, pp. 502-537.
- Hoagland P.**, ed. 2010. *Marine Policy and Economics*. New York: Academic Press, 618pp.
- MacLeod MS, Lynch M, **Hoagland P.** 2009. Ocean zoning. In Steele JH, Thorpe SA, Turekian KK, eds., *Encyclopedia of Ocean Sciences*. 2nd edition. Cambridge, UK: Elsevier. Online at: <http://www.sciencedirect.com/science/referenceworks/9780123744739>.
- Sherman K, Belkin I, Seitzinger S, **Hoagland P.**, Jin D, Aquarone M-C, Adams S. 2009. Indicators of changing states of large marine ecosystems. In K. Sherman, M-C. Aquarone and S.

Adams, eds., *Sustaining the World's Large Marine Ecosystems*. Gland, Switz.: International Union for the Conservation of Nature and Natural Resources, pp. 13-49.

Hoagland P. 2008. From jubilees to halos: clarifying the economic effects of harmful algal blooms on commercial fisheries. *Am. Fish. Soc. Symp.* 64:233-243.

Hoagland, P. and S. Scatasta. 2006. The economic effects of harmful algal blooms. In E. Granéli and J.T. Turner, eds., *Ecology of Harmful Algae*. Ecological Studies, Vol. 189. Berlin: Springer-Verlag, Chap. 30, pp. 391-402. [WHOI Contrib. No. 11,414.]

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Stone, G., L. Madin, K. Stocks, G. Hovermale, **P. Hoagland**, M. Schumacher, C. Steve-Sotka, H. Tausig, P. Etnoyer. 2004. Seamount biodiversity, exploitation and conservation. In L.K. Glover and S.A. Earle, eds., *Defying Ocean's End*. Washington: Island Press, pp. 43-70.

Hoagland, P., K.M. Riaf, D. Jin and H.L. Kite-Powell. 2003. A comparison of access systems for natural resources: drawing lessons for ocean aquaculture in the US Exclusive Economic Zone. In Bridger, C.J. and B.A. Costa-Pierce, eds., *Open-Ocean Aquaculture: From Research to Commercial Reality*. Baton Rouge, LA: World Aquaculture Society, pp. 23-44.

Kite-Powell, H.L., **P. Hoagland**, D. Jin and K. Murray. 2003a. Economics of open ocean growout of shellfish in New England: sea scallops and blue mussels. In Bridger, C.J. and B.A. Costa-Pierce, eds., *Open-Ocean Aquaculture: From Research to Commercial Reality*. Baton Rouge, LA: World Aquaculture Society, pp. 293-306.

Kite-Powell, H.L., **P. Hoagland**, D. Jin and K. Murray. 2003b. Open ocean growout of finfish in New England: a bioeconomic model. In Bridger, C.J. and B.A. Costa-Pierce, eds., *Open-Ocean Aquaculture: From Research to Commercial Reality*. Baton Rouge, LA: World Aquaculture Society, pp. 319-324.

Jin, D., **P. Hoagland** and H.L. Kite-Powell. 2003. A Model of the optimal scale of open-ocean aquaculture. In Bridger, C.J. and B.A. Costa-Pierce, eds., *Open-Ocean Aquaculture: From Research to Commercial Reality*. Baton Rouge, LA: World Aquaculture Society, pp. 55-64.

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- TECHNICAL REPORTS AND MONOGRAPHS:**
- Dalton T, Foley C, **Hoagland P**, Jin D. 2013. Report on the potential economic effects on commercial fishing arising from the Block Island Wind Farm Working Area (BIWF/WA) during construction. Providence, RI: Deepwater Wind Block Island, LLC (November).
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