

Kevin M. Purcell

CONTACT INFORMATION	National Marine Fisheries Service Southeast Fishery Science Center Beaufort Laboratory Beaufort NC, 28516 USA	<i>Voice:</i> (337) 296-6294 <i>Fax:</i> (412) 268-7828 <i>E-mail:</i> kevin@kevin-purcell.com <i>web:</i> www.kevin-purcell.com
RESEARCH INTERESTS	Bayesian statistics, spatial statistics, nonparametric regression, statistical methods for large datasets, statistics for public policy	
EDUCATION	University of Louisiana at Lafayette , Lafayette, LA USA Ph.D., Environmental and Evolutionary Biology, 2009 Bloomsburg University , Bloomsburg, PA USA M.S., Biology, 2003 East Stroudsburg University , East Stroudsburg, PA USA B.S., Biology, 1999 B.S., Marine Science, 1999	
PROFESSIONAL EXPERIENCE	Duke University & NOAA Fisheries , Beaufort, NC USA <i>Postdoctoral Associate</i> 2011 - present <i>Instructor</i> May - June, 2002 Co-taught graduate level course for the Master of Science in Computational Finance program. Shared responsibility for lectures, exams, homework assignments, and grades. <ul style="list-style-type: none">• 46-731 Probability and Statistics, Summer 2002. <i>NSF VIGRE Teaching Fellow</i> January - May, 2001 Head teaching assistant. Duties included shared administrative responsibilities with faculty instructor, fielding of all student inquiries, and oversight of graduate student teaching assistants and graders. <ul style="list-style-type: none">• 36-217 Probability Theory and Random Processes, Spring 2001. <i>Teaching Assistant</i> August, 2001 - present Duties at various times have included office hours and leading weekly computer lab exercises.	
PUBLICATIONS	B.J. Langseth, K.M. Purcell , J.K. Craig, A.M. Schueller, J.W. Smith, K. W. Shertzer, S. Creekmore, K.A. Rose, K. Fennel. 2014. Effect of changes in dissolved oxygen concentrations on the spatial dynamics of the Gulf Menhaden fishery in the northern Gulf of Mexico. <i>Marine and Coastal Fisheries</i> . (In review) K. M. Purcell and C. A. Stockwell. 2013. Mechanism dictating the structure and dispersal of a non-native invasive fish species to New Zealand. <i>Biological Invasions</i> . (In review) D. Enfield, G. Goni, F. Bringas, D. Lindo, S.-Ki Lee, Y. Liu, B. Muhling, L. Avens, J. Agar, J. Litz, P. Richards, L. Garrison, K. M. Purcell , J. Smith, N. Bartlein, T. Minello, B. McAnally, D. Apeti, H. Perryman. (editors) M. Kamauskas, M. J. Schirripa, C. Kelble, G. Cook, J. K. Craig. 2013. Gulf of Mexico Ecosystem Status Report. <i>NOAA Technical Memorandum NMFS-SEFSC-653</i> .	

C. A. Stockwell, J. S. Heilveil, **K. M. Purcell**. 2012. Estimating divergence time for two evolutionarily significant units of a protected fish species. *Conservation Genetics* 14:215–222. **K. M. Purcell**, P. L. Klerks, A. T. Hitch, P. L. Leberg. 2012. The role of genetic structure in the adaptive divergence of populations experiencing saltwater intrusion due to relative sea-level rise. *J. Evolutionary Biology* 25:2623–2632.

K. M. Purcell, N. Ling, C. A. Stockwell. 2012. Evaluation of the introduction history and genetic diversity of a serially introduced fish population in New Zealand. *Biological Invasions* 14:2057–2065.

C. A. Stockwell, **K. M. Purcell**, M. L. Collyer, J. Janovy. 2011. Translocations alter parasite communities of a protected species due to the environmental tolerance mismatch among hosts. *Transactions of the American Fisheries Society* 140:1370–1374.

K. M. Purcell, S. L. Lance, K. L. Jones, C.A. Stockwell. 2011. Ten novel microsatellite markers for the western Mosquitofish, *Gambusia affinis*. *Conservation Genetic Resources* 3: 361–363.

A. T. Hitch, S. B. Martin, **K. M. Purcell**, P. L. Klerks, P. L. Leberg. 2010. Interactions of salinity, marsh fragmentation and submerged aquatic vegetation on resident nekton assemblages of coastal marsh ponds. *Estuaries and Coasts* 34: 653–662.

K. M. Purcell, P. L. Klerks, P. L. Leberg. 2010. Adaptation to sea level rise: Does local adaptation influence the demography of coastal fish populations. *Journal of Fish Biology* 77:1209–1218.

S. B. Martin, A. T. Hitch, **K. M. Purcell**, P. L. Klerks, P. L. Leberg. 2009. Life history variation along a salinity gradient in coastal marshes. *Aquatic Biology* 8:15–28.

K. M. Purcell, A. T. Hitch, P. L. Klerks, P. L. Leberg. 2008. Adaptation as a potential response to sea-level rise: a genetic basis for salinity tolerance in populations of a coastal marsh fish. *Evolutionary Applications* 1: 155–160.

P. L. Leberg, M. C. Green, B. A. Adams, **K. M. Purcell**, M. C. Luent. 2007. Response of waterbird colonies in southern Louisiana to recent drought and hurricanes. *Animal Conservation* 10: 502–508.

PAPERS IN PREPARATION

K. M. Purcell, J. Nance, M. Smith, J. K. Craig. 2014. Coastal hypoxia and its effects on the spatial dynamics of a large marine fishery. (44 pgs, 9 fig, 1 table)

K. M. Purcell and J. K. Craig. 2014. Global fishery imports and Eutrophication: synergistic effects on the demersal nekton community of the Gulf of Mexico. (37 pgs, 5 figs, 2 tables)

CONFERENCE PRESENTATIONS

Paciorek, C.J., J.S. Risbey, V. Ventura, and R.D.Rosen. 2001. Changes in Northern Hemisphere winter storm activity (1949-1999) based on a comparison of cyclone indices. 8th International Meeting on Statistical Climatology, Luneberg, Germany, March, 2001.

Paciorek, C.J. and R. Rosenfeld. 2000. Minimum classification error training in exponential language models. 2000 Spring Transcription Workshop, College Park, Maryland.
<http://www.nist.gov/speech/publications/tw00/html/abstract.htm#cp1-50>

PROFESSIONAL EXPERIENCE

Bureau of Transportation Statistics, U.S. Department of Transportation, Washington, District of Columbia USA

Summer researcher

May, 2000 - August, 2000

Carried out several consulting projects, including modelling of injuries to cadavers in crash test experiments, analysis of airline delay data, and advice on analysis of airline economics data.

Abt Associates, Bethesda, Maryland USA

Associate Programmer Analyst and Research Assistant

October, 1994 - August, 1996

Researcher and computer model developer for U.S. EPA Regulatory Impact Analysis of Section 403 Lead Paint Hazard Rule. Other projects included database analysis, literature reviews, and cost-benefit analysis.

COMPUTER SKILLS

- Statistical Packages: R, S-Plus, BUGS; some experience with SAS; extensive use of C and Fortran statistical libraries.
- Languages: C++, Perl, Pascal, some use of Unix shell scripts, MPI parallel processing library.
- Applications: Generic Mapping Tools (GMT) - Unix mapping software, \LaTeX , common Windows database, spreadsheet, and presentation software
- Algorithms: Experience programming Markov Chain Monte Carlo simulations of Bayesian posterior distributions
- Operating Systems: Unix/Linux, Windows.