

Curriculum Vitae

NAME: Eric Peter Smith

EDUCATION:

1975 B.S., University of Georgia, Department of Mathematics
1982 M.S., University of Washington, Biomathematics Group
1982 Ph.D., University of Washington, Biomathematics Group

Dissertation Title: The Statistical Properties of Biological Indices of
Water Quality. Advisor: Gerald van Belle

PROFESSIONAL EXPERIENCE:

1992 – present **Full Professor**, Department of Statistics, Virginia Polytechnic Institute and State University
2014 – 2015 Director, Computational Modeling and Data Analytics program, Virginia Polytechnic Institute and State University
2007 – 2015 Department Head, Department of Statistics, Virginia Polytechnic Institute and State University
1995 – 2004 **Director**, Statistical Consulting Center, Virginia Polytechnic Institute and State University
1987 – 1992 **Associate Professor**, Department of Statistics, Virginia Polytechnic Institute and State University
1988 **Faculty Research Participant**, Oak Ridge National Laboratory
1989 **Visiting Research Fellow**, University of Kent, Canterbury
1982 – 1987 **Assistant Professor**, Department of Statistics, Virginia Polytechnic Institute and State University
1978 – 1982 **Research Associate**, Biomathematics Group, University of Washington
1977 – 1978 **Teaching Assistant**, University of Georgia and University of Washington

PROFESSIONAL SOCIETIES:

American Statistical Association

HONORS AND AWARDS:

Elected member of the International Statistics Institute (member through 2011)

Fellow of the American Statistical Association

Distinguished Achievement Award from the American Statistical Association (Section on Environmental Statistics)

PUBLICATIONS:

Refereed Journals

Smith, E. P. and T.M. Zaret. 1982. Bias in estimating niche overlap. *Ecology* **63**, 1248-1253.

Smith, E. P. 1982. Niche breadth, resource availability and statistical inference. *Ecology* **63**, 1675-1681.

Smith, E. P. and Gerald van Belle. 1984. Nonparametric estimation of species richness. *Biometrics* **40**, 119-129.

Moore, W.E.C., L. V.Holdeman, E.P. Cato, II. Good, E.P. Smith, R.R. Ranney and J. Burmeister. 1984. Variation in peridontal floras. *Infection and Immunity* **46**, 720-726.

Smith, E. P., P.M. Stewart and J. Cairns, Jr. 1985. Similarities between rarefaction methods. *Hydrobiologia* **120**, 167-170.

Smith, E.P. 1985. Statistical comparison of weighted overlap measures. *Transactions of the American Fisheries Society* **114**, 250-257.

Smith, E.P. 1985. Estimating the reliability of diet overlap measures. *Environmental Biology of Fishes* **13**, 125-138.

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Bell, C.B., F. Ramirez and E.P. Smith. 1985. Aplicacion de modelos de Wiener-Levy a datos biomedicos. *Trabajados in Estadistica* **36**, 3-26.

Stewart, P.M., E.P. Smith, D. Pratt, P.V. McCormick and J.J. Cairns. 1986. Multivariate analysis of protist communities in lentic systems. *Journal of Protozoology* **33**, 152-156.

Good, I.J. and E.P. Smith. 1986. An additive algorithm related to the singular decomposition; or a comparison of polarization, and multiplicative models. *Communications in Statistics: Simulation and Computation* **15**, 545-570.

Bell, C.B. and E.P. Smith. 1986. Inference for nonnegative autoregressive schemes. *Communications in Statistics: Simulation and Computation* **15**, 2267-2294.

Smith, E.P., R. Genter and J. Cairns Jr. 1986. Confidence intervals for the similarity between algal communities. *Hydrobiologia* **139**, 237-247.

- Genter, R., D. Cherry, E.P. Smith and J. Cairns, Jr. 1987. Algal periphyton population and community changes from zinc stress in stream mesocosms. *Hydrobiologia* **153**, 261-275.
- Johnson, C., T. Sharik and E.P. Smith. 1987. Nature and cause of zonation discreteness around glacial prairie marshes. *Canadian Journal of Botany* **65**, 1622-1632.
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- O'Keefe, R., O. Balci and E.P. Smith. 1987. Validation of expert system performance. *IEEE Transaction on Expert System* **2(4)**, 81-90. Reprinted in *AI Applications in Natural Resource Management* **2**, 35-43. Also reprinted in J.S. Chandler and T.P. Liang, 1990. *Developing Expert Systems for Business Applications*, Merrill, Columbus. Pp. 91-100. Also reprinted in U. Gupta (ed.), *Validating and Verifying Knowledge-based Systems*, IEEE computer Society Press, Los Alamitos, CA, pp. 2-11.
- Adams, A.B., V. Dale and E.P. Smith. 1987. The relationship of plant survival to growth form and mechanisms of regeneration of 4 habitats created by the 18 May eruption of Mount Saint Helens, Washington. *Northwest Science* **61**, 160-170.
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- Novascone, M.A., R.C. Chu, J. Wentworth and E.P. Smith. 1988. Dietary and selected lipid profiles of participants in a cardiac risk reduction program. *Nutrition Reports International* **38**, 1259-1268.
- Jenssen, T.A., D.L. Macellini and E.P. Smith. 1988. Seasonality in the micro-distribution of sympatric *Anolis* lizards in Haiti. *Journal of Herpetology* **22(3)**, 266-274.
- Lu, R.P., E.P. Smith and I.J. Good. 1989. Multivariate measures of similarity and niche overlap. *Theoretical Population Biology* **35**, 1-21.
- Smith, E.P. and D. Mercante. 1989. Statistical concerns in the design and analysis of multispecies microcosm and mesocosm experiments. *Toxicity Assessment* **4**, 129-147.
- Novascone, M.A. and E.P. Smith. 1989. Frame size estimation: A comparative analysis of methods based on height, wrist circumference, and elbow breadth. *Journal of the American Dietetic Association* **89(7)**, 964-966.
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- Burton, G.A., P.M. Chapman and E.P. Smith 2002 A review and critique of weight-of-evidence approaches for assessing ecosystem impairment. *Human and Ecological Risk Assessment* 8(7):1657-1673.
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To appear

Mark Hudy, Keith Nislow, Eric P. Smith, Arthur R. Cooper and Dana M. Infante. The Importance of Scale: Assessing and Predicting Brook Trout Status in its Southern Native Range. Wild Trout Symposium

Books

Nadler, M. and E.P. Smith. 1993. *Pattern Recognition Engineering*, John Wiley & Sons.

Banks, D. and Smith, EP (editors). 2008. **The Good Book**: IJGood's comments, criticisms and conclusions. Rice University Press, Houston.

Book Chapters and Proceedings

Bell, C.B. F. Ramirez, and E.P. Smith. 1980. Wiener-Levy models, exchangeable time series and simultaneous inference in growth curve analysis. In *Asymptotic Theory of Tests and Inference*, I.M. Chakravart, ed., Academic Press, NY, 127-145

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- FAEIS NEWSLETTERS (JULY 2011 - MAY 2012) Comparing Age for Faculty in Different Academic Areas, May 15, 2012, Hightower, L., M.A. Marchant, W.W. Richardson, E. Vance, E. Smith, T. Mack, M. Albanese, C. Cadden, M. Paquette, & A.Sharma.
(http://www.faeis.ahnrit.vt.edu/newsletter/may_12/FAEIS_newsletter_may2012.pdf)
- Comparing Gender for Students and Faculty in Animal Science Fields, April 18, 2012, Hightower, L., K. Griffin, M.A.Marchant, W.W. Richardson, E. Vance, E. Smith, T. Mack, M. Albanese, C. Cadden, M. Paquette, & A.Sharma.
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- The Undergraduate Enrollment Trends for Agricultural and Applied Economics, March 1, 2012, Hightower, L., K. Griffin, M.A.Marchant, W.W. Richardson, E. Vance, E. Smith, T. Mack, M. Albanese, C. Cadden, M. Paquette, & A. Sharma.
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- Food Safety: A USDA-NIFA Societal Challenge Area, February 2, 2012, Hightower, L., K. Griffin, M.A. Marchant, W.W.Richardson, E. Vance, E. Smith, T. Mack, M. Albanese, C. Cadden, M. Paquette, & A. Sharma. (http://www.faeis.ahnrit.vt.edu/newsletter/february_12/feb2012newsletter.pdf)
- Childhood Obesity Prevention: A USDA-NIFA Societal Challenge Area, December 7, 2011, Hightower, L., K. Griffin, M.A.Marchant, W.W. Richardson, E. Vance, E. Smith, T. Mack, M. Albanese, C. Cadden, M. Paquette, & A. Sharma. (http://www.faeis.ahnrit.vt.edu/newsletter/dec_11/FAEIS_newsletter12_11.pdf)

FAEIS Update, November 9, 2011, Hightower, L., K. Griffin, M.A. Marchant, W.W. Richardson, E. Vance, E. Smith, T. Mack, M. Albanese, C. Cadden, M. Paquette, & A. Sharma. (http://www.faeis.ahnrit.vt.edu/newsletter/november_11/newsletter_nov11.html)

Climate Change: A USDA-NIFA Societal Challenge Area, October 11, 2011, Hightower, L., K. Griffin, M.A. Marchant, W.W. Richardson, E. Vance, E. Smith, T. Mack, M. Albanese, & A. Sharma. (http://www.faeis.ahnrit.vt.edu/newsletter/october_11/FAEIS_newsletter10_1_11.pdf).

Fallon, J.A., E.P. Smith and W.A. Hopkins. (2012) Determining physiological injury to birds exposed to oil from the Deepwater Horizon (Mississippi Canyon 252) spill. Report prepared for the US Fish and Wildlife Service.

GRANTS:

Co-investigator, Probability estimation NIH Grant #GM18770 (I.J. Good, principal investigator). 1983-1988.

Travel Grant with Oak Ridge Associate Universities, #S-3286, 1989-1992.

Principal investigator, Modeling the toxicity of a complex mixture before discharge #89-0246-08. Westinghouse Savannah River Company (with John Cairns, Jr. and Raymond H. Myers). 1989-1990. (\$29,247).

Principal investigator, An environmental and statistical review of data and data analysis from the Pennsylvania Power and Light Co. #90-0575-10 (with John Cairns, Jr. and Dave Orvos), 1989-1990. (\$7,500)

Principal investigator, Predicting the effect detergent chemicals on aquatic ecosystems using laboratory protozoan communities. Proctor and Gamble, #90-4360-71 (with John Cairns, Jr. and Paul McCormick), 1990. (\$15,000)

Principal investigator, Predicting the effect of detergent chemicals on aquatic ecosystems using laboratory protozoan communities. Proctor and Gamble #90-4360-71 (with John Cairns, Jr. and Paul McCormick), 1991. (\$18,474)

Principal investigator, Statistical procedures to detect and analyze long-term water quality trends. #91-1027-12 (with Golde I Holtzman, G. Evanylo and C. Zipper), 7/1/91-6/30/92. Virginia Water Control Board. (\$22,423)

Principal investigator, Evaluation of Riparian wetlands as naturally occurring decontamination sites. U.S. Department of Agriculture (with D. Berry, R. Reneau, R. Young, and S. Mostaghimi), #92-1111-01. 1992-1993 (\$200,000)

Principal investigator, Dentrification potential of nontidal wetland soils (with D. Berry, R.B. Reneau, Jr., and S. Mostaghimi), Water Resources Research Center. 1993-1994. (\$56,313)

Principal investigator, Studies of benthic macroinvertebrates and fish in streams with EPA region III for development of biological indicators of ecological conditions, (with Reese Voshell), USEPA, #93-1350-02. 1993-1994 (\$43,506)

Principal investigator, Analyzing long-term ecological monitoring data to determine benthic macroinvertebrate community responses to stream acidification in Shenandoah National Park, Shenandoah National Park, #92-1790-04 1992. (\$8,266)

Co-investigator, Mathematical Sciences Computing Research Environment. SCREMS Program, National Science Foundation (with K. Hinkelmann, P. Palettas, G. Terrell, C. Coakley, and K. Ye). 1993. (\$98,448)

Co-investigator, Chronic toxicity of complex mixtures: development of efficient design and analysis of predictive errors, Air Force Grant #430563 (with J. Cairns, Jr., R. Myers, and B.R. Nederlehner). 1994-1995. (\$199, 848)

Principal investigator, 7th International Environmetrics Conference with D. Brillinger, USEPA. 1996. (\$10,000)

Principal investigator, Analysis of long term ecological monitoring of the New River Gorge, National Park Service. 1996. (\$24,000)

Principal investigator, Evaluation of methods for standards assessment Funding to the Statistical Consulting Center from the Water Resources Center, (\$5000) 1998.

College of Arts and Sciences Millennium Grant, (\$8000), 1999.

Principal investigator (with K. Ye), Assessing multiple stressors over large geographic areas. USEPA/NSF (\$266,478) 1999-2002.

Principal investigator, Empirical models for diagnosing causes of stress using biological assessment data. (\$63,900) USEPA 1999-2001.

Co-investigator (with Keying Ye) Statistical analyses in water resource monitoring. (\$19,406) Virginia Water Resources Research Center 2001-2002.

Principal investigator: with (Samantha Bates, Saied Mostaghimi, Gene Yagow, Kevin Brannan, Donald Orth, Jim Berkson) Model-based Clustering for Classification of Aquatic Systems and Diagnosis of Ecological Stress, USEPA STAR grant (10/1/2003– 9/30/2006 \$844,310)

Co-PI (with S. Prisley, L. Carstensen, Jr. and K. Ye. Application of spatial uncertainty models to automate and enhance data fusion. National Geospatial Intelligence Agency. (8/1/05-7/31/08 \$449,643).

Principal Investigator (with Penelope Pooler). 2006. Cooperation And Collaboration On Vital Signs Monitoring Program Of The Northeast Coastal And Barrier Network And Eastern Rivers And Mountain Network Of The National Park Service. National Park Service \$112,017 (100% to statistics).

Principal Investigator (with Dan Spitzner). 2006. Prioritization of watersheds for eastern brook trout restoration. U.S. Geological Survey. \$28,750.

Principal Investigator, 2006-7. Ecological thresholds and structured decision analysis using aquatic macroinvertebrate as indicators of stream health in the mid Atlantic Highlands. US Geological Survey \$30,000.

Y. Jiao, D. Orth, and E.P. Smith MARFIN two-year proposal 08MF004(RF) "Model complexity and stock assessment quality: an investigation of the performance of models of different complexity and implications for model selection in fisheries" (year 1 \$90,999, year 2 \$111,566, total of \$202,565).

D. Kim and EP Smith USFS and James Madison University #10-2330-04, 10/15/10-10/14/15, 5% commitment. Ranking Brook Trout Habitats in West Virginia and Maryland to Resiliency to Climate Change, \$50,011.

R. Murch and others, BAE Systems, #09-1679-02, 6/13/10-5/13/11. 7.6% commitment. Biometrics Training, Performance and Research Initiative (BTPRI). \$242,311

E. Smith, D. Kim, USFS #11-0122-07, 8/30/10 – 9/30/13. 11% commitment. Development and assessment of tools for evaluating stream community responses to global climate change along thermal gradients. \$50,032.

M. Marchant, T. Mack and E.P. Smith, Improvement and Marketing of the Food and Agricultural Education Information System (FAEIS) \$285,000 USDA (2010-2012).

E.P. Smith US Forest Service. GWJ Macroinvertebrate and Air Pollution. 8/2010-7/2013 \$60,000.

E.P. Smith, Office of Naval Research: Data analytics for large acoustic array datasets. 5/2014-12/2014, \$44,281. (with W. Devenport, L. House, S. Leman)

PH.D. DISSERTATIONS DIRECTED:

Ruey-Pyng Lu. 1986. Multivariate nichometrics.

Laura L. Bauer. 1987. Hypothesis testing procedures for non-nested regression models.

Brian D. Marx. 1988. Ill-conditioned information matrices and the generalized linear model: an asymptotically biased estimation approach.

Donald E. Mercante. 1990. Analysis of multispecies microcosm experiments.

Barbara R. Kuzmak. 1990. An examination of outliers and interaction in a nonreplicated two-way table.

Sungsue Rheem. 1992. A class of multivariate nonparametric tests for monotone trend with environmental applications.

Kyoungah See. 1993. Three-mode principal component analysis in designed experiments.

Matthew Rotelli. 1996. Neural networks as a tool for statistical modeling.

Angie McMahan. 1997. Design of experiments under measurement error.

Michael Beaghan. 1997. Canonical correlation and related methods over three modes.

David Wang. 1998. Zero heavy data.

Patrick Darken. 1999. Testing for changes in trend in water quality data.

Robert Noble. 2001. Multivariate applications of Bayesian Model Averaging.

Ilya Lipkovich. 2002. Bayesian model averaging and variable selection in multivariate ecological models.

Yuyan Duan. 2005 (co-chair with Keying Ye) A modified Bayesian power prior approach with applications in water quality evaluation

Penelope Pooler. 2005. Bayesian hierarchical methods and use of ecological thresholds and changepoints for habitat selection models.

Huizi Zhang. 2006. Classification analysis for environmental monitoring: Combining information across multiple studies.

David Farrar. 2006. Some model based and distance based clustering methods for characterization of regional ecological stressor-response patterns and regional environmental quality trends.

Zhengrong Li. 2006. Model-based tests for standards evaluation and biological assessment.

Feng Gao, 2007. Clustering response-stressor relationships in ecological studies.

Jonathan Duggins, 2010. Parametric resampling methods for retrospective changepoint analysis.

Han Li, 2014 (co-chair with Xinwei Deng). Statistical Modeling and Analysis of Bivariate Spatial-Temporal Data with the Application to Stream Temperature Study

PROFESSIONAL PRESENTATIONS:

1. Niche breadth, resource availability and statistical inference. Biometric Society (WNAR) meetings, June 19-21, 1982, San Diego, California.
2. Nonparametric estimation of diet overlap. Biometric Society (ENAR) meetings, March 20-23, 1983, Nashville, Tennessee.
3. An additive algorithm related to the singular decomposition; or a comparison of multiplicative and additive algorithms. Meetings of the American Statistical Association. August 13-16, 1984, Philadelphia, Pennsylvania.
4. Similarity analysis. Virginia Academy of Science meetings, Williamsburg, Virginia, May 1985.
5. The analysis of diet similarity. Ecological Society of America meetings, Minneapolis, Minnesota, June 17-21, 1985.
6. Similarity analysis. Department of Statistics colloquium, October 3, 1985.
7. Randomized similarity analysis of multispecies laboratory and field experiments. Workshop on the Statistical aspect of water quality monitoring, Burlington, Ontario, October 7-10, 1985.

8. Analysis of designed multispecies experiments using similarity measures. NSF/CBMS Conference on Mathematical Stochastics of Species Abundance and Community Composition, Stillwater, Oklahoma, March 17-21, 1986.
9. Mean similarity and the analysis of designed experiments. International Biometrics Conference, Seattle, Washington, July 27 – August 1, 1986.
10. On the use of mean similarity for testing hypotheses about ecological change and similarity. 38th Annual AIBS Meeting and the meeting of the Ecological Society of America, Columbus, Ohio, August 9 – 13, 1987.
11. Some multivariate measures of niche overlap and their statistical properties. Poster presented at 38th Annual AIBS Meeting and the meeting of the Ecological Society of America, Columbus, Ohio, August 9 – 13, 1987.
12. Developing a statistical support system for environmental hazard evaluation. Invited talk with John Cairns, Jr., presented at Environmetrics 87, Washington, D.C., November 15 – 18, 1987.
13. A PROC IML macro for testing non-nested regression models. With L.L. Bauer, and Oral Capps, Jr. Proceedings of the Thirteenth Annual SAS users group international conference, Orlando, Florida, March 27 – 31, 1988.
14. Variable selection in multivariate multiresponse permutation procedures. The Symposium on the Interface: Computing Science and Statistics. Washington, D.C., April 21- 23, 1988.
15. Developing a statistical support system for environmental hazard evaluation. Presented at the Summer Computer Simulation Conference, July 1988.
16. Statistical issues in the design and analysis of multispecies microcosm and mesocosm experiments. First Biennial Conference on Microbial Aspects of Water Quality, Banff, Canada. September 1988.
17. But we always measure all these variables. East Tennessee Chapter of the American Statistical Association meeting and University of Tennessee colloquia. November 17, 1988. Also presented to the multivariate study group of the Royal Statistical Society, May 9, 1989, as a colloquium for the statistics group at the University of Kent, March 10, 1989, and as an invited talk for the Grenyog Statistics Conference, Grenyog, Wales, on April 20, 1989.
18. Ill-conditioned information matrices, the generalized linear model and the effects of acid rain. First International Conference on Environmetrics, Cairo, Egypt, April 5, 1989, and as a colloquium for the statistics group of the University of Kent, March 30, 1989. Also presented August 31, 1989, to the Statistics Department at Virginia Tech.
19. The importance of processes in the estimation and testing for trends in water quality. First International Conference on Environmetrics, Cairo, Egypt, April 6, 1989.
20. Selection of factors affecting the presence of fish in Adirondack lakes: a case study (with J. Beauchamp and S. Christensen). Presented at the International Conference on Environmetrics, Como, Italy, September 25 – October 2, 1990.
21. Some comments and criticisms of the before-after control-impact model for impact assessment (with D. Orvos and J. Cairns, Jr.). Presented at the meetings of the Society of Environmental Toxicology and Chemistry, Washington, D.C., November 12 – 15, 1990.
22. The statistical validity of biomonitoring data (with J. Cairns, Jr.). Presented at the Workshop on Biological Monitoring of Freshwater Ecosystems, Purdue University, November 29 – December 1, 1990.
23. Some comments and criticisms of the before-after control-impact model for impact assessment. Presented at the ASA Winter Meetings, New Orleans, January 3, 1991.
24. Multicollinearity in generalized linear models. Statistics Faculty Research Seminar, Virginia Commonwealth University, Richmond, Virginia, March 29, 1991.
25. Some new approaches to the assessment of ecological impact. Third International Conference on Environmetrics, Madison, Wisconsin, October 5 – 10, 1991.

26. Mixture models for environment impact assessment. Invited talk at the Meeting of the Biometric Society (ENAR), Cincinnati, Ohio, March 23 – 25, 1992.
27. Multivariate assessment of trend in environmental variables. Invited talk at the Seventh International Conference on Multivariate Analysis, Penn State, May 5 – 9, 1992.
28. Extrapolation methods for setting ecological standards for water quality: statistical and ecological concerns. Fourth International Conference on Statistical Methods for the Environmental Sciences, Helsinki University of Technology, Otaniemi, Espoo, Finland, August 17 – 21, 1992.
29. Multivariate assessment of trend in environmental variables. Fourth International Conference on Statistical Methods for the Environmental Sciences, Helsinki University of Technology, Otaniemi, Espoo, Finland, August 17 – 21, 1992.
30. Randomization tests for multivariate hypotheses. Invited talk. North American Benthological Society, Calgary, Canada, May 23 – 28, 1993.
31. Model diagnostics for three factor models. Nineteenth Annual SAS User's Group International Conference, Dallas, Texas, April 10 – 13, 1994.
32. Assessment of status and trends using ecological data. Presented at Mid Atlantic Highlands Area Environmental Monitoring and Assessment Conference, Hershey, PA, February 23 – 25, 1994.
33. Model diagnostics for three factor models. Nineteenth Annual SAS User's Group International, Cary, NC, March 11 – 14, 1994.
34. Randomization methods for assessing multivariate hypotheses. Invited talk. Environmetrics 94, Burlington, Ontario, August 11 – 15, 1994.
35. Neural nets for designed experiments. Poster session at the ASA meetings (with Matt Rotelli), August 1996.
36. Graphical display of metrics for assessing environmental change. Seventh International Conference on Quantitative Methods in Environmental Science, Sao Paulo, Brazil, August 1996.
37. Uncertainty in ecological and environmental risk analyses. Department of Statistics Colloquium. November 7, 1996.
38. Quantitative uncertainty analysis. Invited presentation at a special shortcourse on uncertainty analysis in ecological risk assessment. November 1996.
39. A preliminary multimetric index for streams of the Mid-Atlantic Highlands (with Reese Voshell). Mid-Atlantic Water Pollution Workshop. March 1997.
41. Uncertainty in ecological and environmental risk analysis. Miami University Colloquium. September 22, 1997.
42. Analysis of repeated measures. Department of Horticulture Colloquium. October, 1997.
43. Analysis of zero heavy toxicity data. SETAC 97 (Nov.) SETAC. San Francisco. (Poster).
44. Development of Tick Threat Assessment Maps for U.S. military Installations. 2nd Force Health Protection Conference –USACHPPM, Atlanta, GA. August 1999. (with Ken Stein)
45. Development of Tick Threat Assessment Maps for U.S. Military Installations. Eighth Annual ITAM (Integrated Training Area Workshop) Camp Ripley, Minnesota. August 1999. (Poster with Ken Stein)
46. Standards Assessment Meetings of the American Statistical Association. 1999
47. Evaluating Change in Trend Using Modified Kendall's Tau Meetings of the International Environmetric Society, 1999.
48. What to Do With All That Missing Data? SETAC 99 (Nov).
49. Relating Environmental Stressors and Responses Using Bayesian Model Averaging 11th International Environmetric Conference, Sheffield, England (September, 2000)
50. Logistic Modeling of Sediment Toxicity Annual Sediment Advisory Group Meeting, Minneapolis (September, 2000).
51. Regional assessment of environmental data Environmetric Society, Genoa Italy, June 16-23, 2003

52. Bayesian model averaging for canonical correspondence analysis. Environmetric Society, Genoa Italy, June 16-23, 2003
53. Standards, Monitoring, and Detection Joint Statistical Meetings, San Francisco 08/06/03,
54. Modeling sediment toxicity using logistic regression SETAC meetings, Austin, TX, November, 2003.
55. Evaluation of Standards Data from Probabilistic Monitoring Programs EMAP meeting, Newport, RI (May, 2004).
56. Model-based clustering of stressor-response relationships NABS, Vancouver, (June, 2004)
57. Model based clustering of stressor-response relationships. Presented at the Fifth Winemiller Symposium, October 2004.
58. Bayesian Logistic Modeling in the Classification Analysis of Water Quality Eric. P. Smith, Keying Ye, and Huizi Zhang Joint Statistical Meetings (August, 2004).
59. Clustering Stressor-Response Relationships, How do we know if the water quality is bad? Two invited talks at the 34th Annual Mathematics and Statistics Conference, Sept 29-30, Miami University.

REFEREEING for JOURNALS:

1. *Ecology*
2. *Biometrics*
3. *Technometrics*
4. *Journal of Wildlife Management*
5. *Environmental Biology of Fishes*
6. *Canadian Journal of Fisheries and Aquatic Sciences*
7. *American Society for Testing and Materials (ASTM)*
8. *Environmental Management*
9. *National Academy of Sciences*
10. *North American Benthological Society*
11. *Statistical Computation and Simulation*
12. *Water Resources Research*
13. *SETAC Special Publication Series*
14. *Water Environment Federation*
15. *Journal of Environmental Statistics*
16. *Transactions of the American Fisheries Society*
17. *Journal of the American Statistical Association*
18. *Environmental Toxicology and Chemistry*

PROPOSAL REFEREEING FOR:

1. National Geographic Society
2. United States Geological Survey (USGS)
3. MONTS (Montana)
4. National Science Foundation
5. Natural Sciences & Engineering Research Council of Canada

PROFESSIONAL ACTIVITIES:

Panel Discussant: Frontiers of Statistical Ecology. Held at the meetings of the Ecological Society of America, August 10 – 16, 1986 at Syracuse, New York.

Member, Ad Hoc Committee to establish a statistics section of the Ecological Society of America, 1986.

Member, Scientific Committee, Second through Tenth International Environmetrics Conferences.

Elected Publications Chair of the Environmental Section of the American Statistical Association, 1993.

Discussion Leader, National Research Council Workshop on Ecological Risk Assessment, February 26 – March 1, 1991, Warrenton, Virginia.

Discussant, US Geological Survey workshop on biological monitoring of rivers, March 31 – April 2, 1992.

Associate Editor, *Environmental Management*, 2012 to present.

Associate Editor, *Environmetrics*, 1989 to 2011.

Associate Editor, *Journal of Agricultural, Biological and Environmental Stats*, 1994 to 2004.

Associate Editor, *Journal of the American Statistical Association*, Applications and Case Studies, 1998 to 2003.

Editorial Collaborator, *Ecological and Environmental Statistics*, 1996 to present.

Secretary, The International Environmetrics Society, 1994 to 2000.

Session Chair, 1986, 1996, 2003 ASA meetings, 1996, SETAC 1992-1999 TIES

Co-organizer, Bayesian Statistics in Environmental Studies 1996 ASA meetings.

Developed and presented short course Multivariate Methods in Ecotoxicology, November 1998, SETAC meeting, Uncertainty Analysis (with Dwyane Moore, Bill Warren-Hicks), November 1997, 1998

Editor, Special Issue of JABES. Monitoring Over Space and Time. 1999 (with Tony Olson).

Environmental Statistics Section of the American Statistical Association (chair elect 2001, chair 2002, past chair 2003), Presentation award committee (2004).

Section editor for the Natural Resources section for the Encyclopedia of Environmetrics.

CONSULTING AND NATIONAL COMMITTEES

Member, Technical Advising Committee, Virginia Water Resources Research Center (1983 – 2006).

Member, National Research Council Committee to review the Department of the Interior's Biomonitoring of Environmental Status and Trends Program (1995).

Member of ASTM Committee E47 on Biological Effects and Environmental Fate and ASTM Subcommittee E47.03 on Sediment Assessment and Toxicology (2002-3).

Reviewer of monitoring programs for the County Sanitation Districts of Los Angeles County (2002).

Consultant for Sidley Austin, LLC (2003-2007).

Reviewer for EPA and WERF on WET testing (2004, 2008)

Reviewer of “Developing Methods to Reduce Bird Mortality in the Altamont Pass Wind Resource Area”, prepared by BioResource Consultants for the California Energy Commission (2006)

Deepwater Horizon SEAMAP Surveys Planning Committee Workshop, August 25-25, 2010 (advisory panel on surveys for the Gulf of Mexico).

Panel member for the Scientific Advisory Board reviewing EPA’s technical support document: *National-Scale Mercury Risk Assessment Supporting the 25 Appropriate and Necessary Finding for Coal and Oil-Fired Electric Generating Units - March 26 2011.*

DEPARTMENT AND UNIVERSITY SERVICE:

Interim Department Head 2006-7, Department Head 2007 to present
Director, Computational Modeling and Data Analytics program 2014 to present

Departmental Library Committee, 1982 – 1990

Departmental Curriculum Committee, 1985 – 1987

Departmental Undergraduate Committee, 1986 – 1987

Ad Hoc Organizing Committee for the I.J. Good Symposium, 1987

Computer Users Subcommittee of the University Computing Committee, 1987

Research Committee, 1988 – 1990, 2000-2005

Colloquium Committee, 1989, Head of Committee, 1990

Member, Personnel Committee, 1991 – 1994, 1996 – 1998, 2003-2005 Head of Committee, 1992, 1994, 1998, 2000

Member, Consulting Committee, 1989 – present, Head, 1996 – Present

Computing Committee, Head, 1989-1997, member since 1997

College Personnel Committee, 1992 – 1994

College Research Planning Committee, 1993 – 1994, 1996, 2003

College Nominations Committee 2003-4

Revised/October 2014

Attempts are made to keep this document as updated as possible
however, some information may be missing.