

Section on Statistics and the Environment

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Overview of the Section

The formation of a Section on Statistics and the Environment (ENVR) was approved by ASA in 1988, and the Section officially began in 1990 with J.C. Bailar as its first chair. ENVR currently has over 600 members with representation from academia, government and industry. Over the years ENVR has been active at JSM with invited and topic contributed sessions, and it has also sponsored sessions at both ENAR and WNAR (Eastern/Western North American Region of the International Biometric Society) meetings. ENVR has been sponsoring biennial workshops since 2000 on topics of interest to a broad range of statisticians working on problems related to environmental and/or ecological science. The Section has conducted a student paper competition since 1993, and it has presented awards for distinguished achievement since 1993. A young investigator award was added in 2009. This poster recounts the history of ENVR, highlighting its many contributions within the Statistics community and beyond. A timeline across the bottom shows important milestones relevant to environmental science and statistics.

The Early Years

The years leading up to the establishment of ENVR in 1990 are well documented by Liggett and Splitstone (1990) in their *History of the Section on Statistics and the Environment*. Some highlights from that paper are included here (see also the timeline below, constructed with reference to <http://www.epa.gov/40th/timeline.html>). Early incarnations of ENVR began to crystallize in the early 1970s with a series of Symposia on Statistics and Environment that began in 1971; with conferences and funded research sponsored by the Societal Institute of the Mathematical Sciences; with the formation of an ad hoc committee that met at the JSM in 1974 in an effort to coordinate efforts among professional organizations, government agencies, academia, and industry; and with a series of conferences on radiation and health sponsored by the ASA beginning in 1981. The ad hoc committee that first met at the JSM in 1974 became the ASA Committee on Statistics and the Environment, and then, ENVR.

Vision and Mission

ENVR’s strategic plan was written in 1995 and then revised and approved by the Executive Committee in 1998. Vision and Mission Statements followed as action items from the strategic plan (details are well described in Nussbaum (2012)), and these are accessible on the ENVR website at <http://community.amstat.org/ENVR/info/aboutus/visionandmissionstatement>.

On-Going Activities

Since 2000, ENVR has sponsored or co-sponsored bi-annual workshops in Environmental Statistics (see list below). Recognition of distinguished achievement and of young and student investigators is a continuing important activity of the Section (recent awardees listed below). The year-to-year functioning of the Section is directed by an Executive Committee (listed below), and more details about the Section are available on the ASA website, <http://community.amstat.org/ENVR/home>.

Workshops

Year	Workshop Topic	Location
2000	Hierarchical Modeling	Columbus, OH
2002	Spatial Statistics	Seattle, WA
2004	Computational Environmetrics	Chicago, IL
2006	Multivariate Methods	Chicago, IL
2008	Monitoring the Environment	Boulder, CO
2010	Environmetrics	Boulder, CO
2012	Spatial Modeling	Raleigh, NC
2014	Methods in Ecology	Fort Collins, CO

Section Chairs

1990 John C. Bailar	2003 Anthony R. Olson
1991 N. Phillip Ross	2004 Walter W. Piegorsch
1992 William F. Hunt	2005 Jean Opsomer
1993 Ralph L. Kodell	2006 Jay M. Ver Hoef
1994 G.P. Patil	2007 Mary C. Christman
1995 Richard O. Gilbert	2008 Lance A. Waller
1996 Lawrence H. Cox	2009 Gretchen Moisen
1997 George Casella	2010 Dale L. Zimmerman
1998 Noel Cressie	2011 Jennifer A. Hoeting
1999 Loveday Conquest	2012 Jun Zhu
2000 Barry D. Nussbaum	2013 Petrutza Caragea
2001 Linda J. Young	2014 Alix I. Gitelman
2002 Eric P. Smith	

Refer to <http://community.amstat.org/ENVR/Home> for a complete list of officers.

Awards (since 2009)

Distinguished Achievement	Young Investigator	Student Paper
2009 William Christensen	Andrew Finley	
2010 Marc G. Genton		David Dail
	Victor De Oliveira	
2011	Bo Li	Matthias Katzfuss
2012 Stephan Sain	Grace Chiu	Ephraim Hanks
	Lance Waller	
2013 Alan Gelfand	Dan Cooley	
	Kate Calder	Stefano Castruccio
	Doug Nychka	
2014 Michael Stein	Brian Reich	
	Murali Haran	Won Chang
	Mevin Hooten	
	David Warton	

Refer to <http://community.amstat.org/ENVR/Home> for a complete list.

References

- Liggett, W. & Splitstone, W. (1990) History of the Section on Statistics and the Environment, *The American Statistician*, 44 (2), pp. 94–95.
- Nussbaum, B.D. (2013) American Statistical Association, Section on Statistics and the Environment in *The Encyclopedia of Environmetrics*, 2nd Ed. A.H, El-Shaarewi & W.W. Piegorsch editors.
- <http://www.epa.gov/40th/timeline.html>

