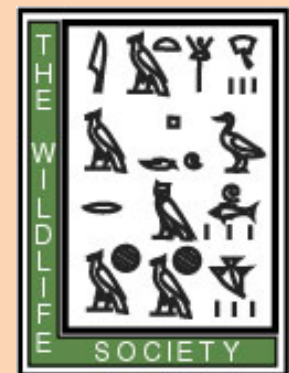




December 9-12, 2012 *Hyatt Regency • Wichita, Kansas* [midwestfw.org](http://midwestfw.org)

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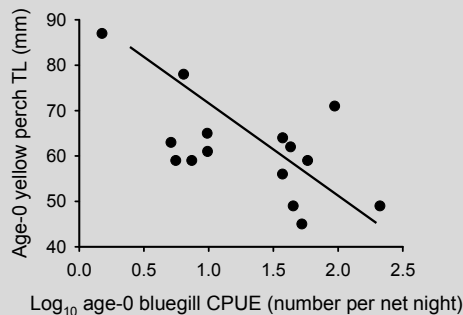
# R Introduction for Basic Fisheries Analyses

## Instructor:

Dr. Derek Ogle  
Professor of Mathematics & Natural Resources  
Northland College

## Topics Covered:

General philosophy underlying the use of R · Differences among and uses of R objects · Constructor and extractor functions · Reading data from common formats · Simple data manipulations and graphics · Linear and non-linear regression · Report writing



Fisheries related examples including Length/Age Frequencies · Size Structure · Catch Curves · Von Bertalanffy Growth · Petersen Mark-Recapture

## Workshop Format:

Instructor demonstration followed by guided hands-on computer work by participants

"Derek went at the perfect pace for someone unfamiliar with R and the information covered was pertinent to students and professionals alike" – **Dan Dembkowski**  
(President, Student Subsection of AFS)

# Archiving Workshop

## Instructor:

Randi Sue Smith  
Museum Curator & Archivist  
US Fish & Wildlife Service  
DC Booth Historic National Fish Hatchery and Archives

- Have you ever wondered whether or not to toss those old records?
- Searched for but couldn't find digital photos or a report last seen on an OLD computer or a website visited 5 or more years ago?
- Wondered what the coding on an old form meant?
- Found water stains on your childhood memory photos?

## Topics Covered:

Answers to previous questions and how to decide what to save, and where to save it, short and long term usefulness, personal and work related information • Digital preservation and loss, web issues • Paper based and object preservation, agents of deterioration • Examples of good and bad storage materials and practices, deterioration (Box of Horror and Disgust) • Disasters, safety



# Before-After-Control-Impact (BACI) Statistical Designs: Detecting Change in Aquatic Systems

Instructors:

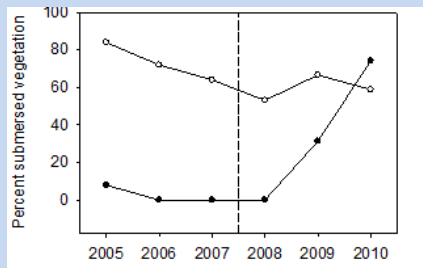
Dr. Daniel James<sup>1</sup> and Dr. Steve Chipps<sup>2</sup>

<sup>1</sup>U.S. Fish and Wildlife Service

<sup>2</sup>Unit Leader, U.S. Geological Survey, South Dakota Cooperative Fish and Wildlife Research Unit, South Dakota State University

## Topics Covered:

Background on BACI designs, application, and interpretation of BACI designs for traditional fisheries assessment data. Using asymmetrical analysis of variance to evaluate patterns of change in ecosystems. The use of long-term data to detect change due to either a putative impact or natural variation. A very robust analysis which is useful for a wide range of applications.



## Workshop Format:

Lecture followed by practice problems for workshop participants to get “hands on” experience. A packet of supplemental information will be provided for each participant on BACI data analysis, interpretation, and application along with the BACI program.

“Both instructors demonstrated enthusiasm for the subject and provide excellent examples and learning materials to help participants learn the process, from study design to the final analysis and interpretation. I highly recommend this workshop for graduate students, academics, and agency personnel.” – **Dr. Melissa Wuellner (Distance Education Coordinator at South Dakota State University)**



# Workshop Details

Workshop	Duration (Sunday, December 9)	Professionals	Students	Additional materials needed
		Early rate, regular rate; respectively		
R	1 day (8am-5pm)	\$50, \$70	\$20, \$40	Personal laptop
Archiving	0.5 day (1-5 pm)	\$10, \$30	\$5, \$15	None
BACI	0.5 day (1-5 pm)	\$20, \$40	\$10, \$30	Personal laptop

**Early Rate Ends: October 26<sup>th</sup> (Friday)**

**Regular Rate Ends: November 23<sup>rd</sup> (Friday)**

If you are interested in signing up for one of these workshops or have any questions, please contact Mark Kaemingk prior to either of these dates to secure a spot:

Mark A. Kaemingk (South Dakota State University)

[mark.kaemingk@sdstate.edu](mailto:mark.kaemingk@sdstate.edu) (preferred) | Office: [605-688-6577](tel:605-688-6577) | Fax: [605-688-4515](tel:605-688-4515)

Please include your 1) name 2) affiliation (professional or student) 3) email/phone  
The form of payment will be determined at a later date.