

CURRICULUM VITAE

Kate I. Siegfried

(former name: Kate I. Andrews)

National Marine Fisheries Service, Beaufort Laboratory

101 Pivers Island Road, Beaufort, NC, 28516

Phone: (252) 728-8721, Fax: (252) 728-8784

E-mail: Kate.Siegfried@noaa.gov

EDUCATION

2006 – Ph.D. in Environmental Studies, University of California, Santa Cruz.
Advisor in Applied Mathematics and Statistics Department, Professor Marc Mangel. Dissertation title: Fishery management in data-limited situations: applications to stock assessment, marine reserve design and fish bycatch policy.

2002 – B.S. in Biology (Cum Laude), Chemistry minor, University of New Mexico, Albuquerque. Honors thesis advisor: Dr. Thomas Turner. Honors thesis title: DNA isolation methods of ethanol-preserved Rio Grande Silvery Minnow (*Hybognathus amarus*) eggs.

PROFESSIONAL EXPERIENCE

2011 to current – Research Mathematical Statistician, National Marine Fisheries Service, Beaufort, NC. Main duties: Collect, synthesize, & analyze fishery statistics; assess stocks for management or conservation actions; perform quantitative analyses on fishery-related topics; research age, growth, life history, fisheries, & population dynamics of reef fishes; serve on NMFS & external committees.

2006 to 2011 – Mathematical Statistician, National Marine Fisheries Service, Panama City, FL. Shark Population Assessment Group.

PUBLICATIONS

Shertzer, K., E. Williams, J.K. Craig, K. Fitzpatrick, N. Klibansky, **K.I. Siegfried**. 2019(Accepted). Recreational sector is the dominant source of fishing mortality for oceanic fishes in the Southeast United States Atlantic Ocean, *Fish Manag Ecol*.

Fitzpatrick, E.E., E.H. Williams, K.W. Shertzer, **K.I. Siegfried**, J.K. Craig, R.T. Cheshire, G.T. Kellison, K.E. Fitzpatrick, and K. Brennan. 2017. Recreational sector is the dominant source of fishing mortality for oceanic fishes in the Southeast United States Atlantic Ocean. *Mar Fish Rev.*, 79 (1): 1-27.

Siegfried, K.I., E.H. Williams, K.W. Shertzer, and L. Coggins. 2016. Improving

- stock assessments through data prioritization. *Can. J. Fish. Aquat. Sci.*, 73:1-9.
- Baremore, I. E., D.M. Bethea, and **K. I. Andrews**. 2012. Gillnet selectivity for juvenile blacktip sharks (*Carcharhinus limbatus*). *Fishery Bulletin*, 110: 231-241.
- Andrews, K.I.**, and M. Mangel, 2012. Asymptotic size and natural mortality of long-lived fishes for stock assessments. *Fisheries Research* 127-128: 45-48.
- Jiao, Y., E. Cortés, **K.I. Andrews**, and F. Guo. 2011. Poor-data and data-poor species stock assessment using a Bayesian hierarchical approach. *Ecological Applications* 21(7): 2691-2708.
- Baremore, I. E., **K. I. Andrews**, and L. F. Hale. 2009. Difficulties associated with modeling growth in the Atlantic angel shark (*Squatina dumeril*). *Fisheries Research* 99:203-209.
- Levin, P. S., I. Kaplan, R. Grober-Dunsmore, P. M. Chittaro, S. Oyamada, **K. I. Andrews**, and M. Mangel. 2009. A framework for assessing the biodiversity and fishery aspects of marine reserves. *Journal of Applied Ecology* 46:735-742.
- Siegfried, K. I.** and B. Sansó. 2006. Two Bayesian methods for estimating parameters of the von Bertalanffy growth equation. *Environmental Biology of Fishes* 77: 301-308.

SPECIAL ACTIVITIES

Consulting/Panels

- 2016 – Serve as a reviewer for the Mississippi-Alabama Sea Grant Consortium Red Snapper Panel.
- 2016 to current – Serve as the South Atlantic representative of the Management Strategy Evaluation Working Group (Internal NMFS).
- 2015 to 2018 – Serve as a member of the Otolith Sample Size Working Group.
- 2014 – Served as a reviewer for the Safina Center’s Seafood Guide Program.
- 2011 to current – Serve on multiple Interdisciplinary Planning Teams (IPT), including Amendment 19 (south Atlantic Black Sea Bass), Amendment 2 (Coastal Migratory Pelagic Resources in the Gulf of Mexico and south Atlantic Region), Amendments 16, 26, 29, and 35 (Snapper Grouper Fishery of the South Atlantic Region).
- 2008 to 2010 – Assess shark species as a U.S. representative to ICCAT (the International Commission for the Conservation of Atlantic Tunas).
- 2007 to 2011 – Provided scientific advice to the Atlantic Highly Migratory Species Management Division.

Editorial and technical reviews

Reviewer for the following journals:

Aquatic Biology, Ecological Modelling, Fishery Bulletin, Fisheries Research, ICES Journal of Marine Science, Journal of Applied Ecology, Marine and Coastal Fisheries, Marine Ecology Progress Series, Marine and Freshwater Research, Oecologia, PLOS One, Transactions of the American Fisheries Society.

Recent Grants

2016 – ACCSP grant (\$107,638), co-PI: Erik Williams.

2013 – Assessment Methods Working Group (\$21,500), co-PIs: Erik Williams, Kyle Shertzer, Lew Coggins.

Instruction/Mentoring

2017 – 2018 Post-doctoral advisor to Dr. Jared Flowers. Project: A Sampling Strategy Evaluation to Determine Which Data and what Sample Sizes Most Affect Assessment Accuracy in the US South Atlantic

2011 – 2013 Member of Irene Ballesta's thesis committee at Virginia Polytechnic Institute and State University. Advisor: Yan Jiao. Thesis title: "Influence of the Estimator Selection in Scalloped Hammerhead Shark Stock Assessment," completed 2013.

2011 – Internship advisor to Jeffrey Kipp, a Professional Masters student at the University of Maryland, Eastern Shore. The internship was in lieu of a thesis and required a summer curriculum for Mr. Kipp to become proficient in the use of GLMs for standardizing indices. Currently a Stock Assessment Scientist with the Atlantic States Marine Fisheries Commission, Arlington, VA.

2010 – Guest lecturer for graduate-level Fisheries Population Dynamics course at USF, St. Petersburg, FL. I taught three days of a two week graduate course. Contact: Dr. Jim Berkson.

2008 – One week introductory R course taught to my colleagues at the National Marine Fisheries Service, Panama City, FL laboratory.

2006 – Guest lecturer in Graduate Conservation Biology, Animal Ecology, and Political Economy and the Environment.

2006 – Independent study advisor for Nathan Hale's honors thesis. Topic: Bycatch reduction devices and their effectiveness in the Gulf of Mexico shrimp fishery. Currently a Project Manager and Staff Ecologist at Live Oak Associates, Inc., San Jose, CA.