

# Charles F. Cotton

Florida State University  
Coastal and Marine Laboratory  
3618 Coastal Highway  
St. Teresa, FL 32358-2702  
(850) 697-4092  
[ccotton@fsu.edu](mailto:ccotton@fsu.edu)

## EDUCATION

Ph.D. Marine Science, College of William and Mary, Virginia Institute of Marine Science, March, 2010

**Dissertation Title** : “Age, Growth, and Reproductive Biology of Deep-water Chondrichthyans”

M.S. Marine Science, University of Georgia, 2002

**Thesis Title** : “Optimizing Growth for Aquaculture of Juvenile Black Sea Bass *Centropristis striata* L. : Effects of Temperature, Salinity, Commercial Diet and Feeding Ration”

B.S. Applied Biology, minor in Spanish, Georgia Institute of Technology, 1995

## PROFESSIONAL EXPERIENCE

**Florida State University Coastal and Marine Lab:** 2013 – present  
Assistant Research Faculty

**University of Central Florida:** 2014 – present  
Graduate Faculty Scholar

**Savannah State University:** 2012 - 2013  
Postdoctoral Associate

**Virginia Institute of Marine Science:** 2011 - 2012  
Visiting Scientist

**Virginia Institute of Marine Science:** 2010 - 2011  
Postdoctoral Curatorial Associate

**Virginia Institute of Marine Science:** 2002 - 2010  
Graduate Research/Teaching Assistant

**Virginia Institute of Marine Science:** 2003 - 2004  
Interim Curator – VIMS Ichthyological Collection

**University of Georgia, Department of Marine Sciences:** 1999 - 2002  
Graduate Research/Teaching Assistant

**University of Georgia Marine Extension Service, Shellfish Research and Aquaculture Lab:** 1998 - 1999  
Research Technician II

**University of Georgia Marine Institute:** 1997 - 1998  
Research Technician II

**Sapelo Island National Estuarine Research Reserve:** 1995 - 1997  
Watershed Coordinator

**University of Georgia Marine Institute: 1995**

Research Intern

**PROFESSIONAL SERVICE**

- Member of the MAR-ECO expedition to the Mid-Atlantic Ridge ([www.mar-eco.no](http://www.mar-eco.no))
- Member of the MAR-ECO fish taxonomist workgroup
- Encyclopedia of Life curator
- Co-host (with Dr. Dean Grubbs) of special symposium at the 2012 American Elasmobranch Society Meeting: “Biology of Deep-Water Chondrichthyans”
- Guest editor of special issue of *Deep Sea Research II*, proceedings of the symposium “Biology of Deep-Water Chondrichthyans”
- Scientific Advisor for the film *The Luminous Deep* ([www.theluminousdeep.com](http://www.theluminousdeep.com))
- Scientific Advisor for the Shark Trust ([www.sharktrust.org](http://www.sharktrust.org))
- Scientific Advisor for Shark Advocates International ([www.sharkadvocatesinternational.org](http://www.sharkadvocatesinternational.org))
- IUCN DC Marine Community Panel Discussion Speaker
- American Elasmobranch Society Nominating Committee (2013-2014)
- Reviewer for: *Transactions of the American Fisheries Society*, *Estuaries and Coasts*, *Deep Sea Research I*, *Deep Sea Research II*, *North American Journal of Aquaculture*, *Marine and Freshwater Research*, *Journal of Fish Biology*, *Bulletin of Marine Science*, *Environmental Biology of Fishes*, *Northeastern Naturalist*, *Scientific Reports*, *Endangered Species Research*, *Chinese Journal of Oceanology and Limnology*, *National Geographic Grant Program*, *Marine Fisheries Initiative (MARFIN)*, *Saltonstall-Kennedy Grant Program*, *National Research Council of Romania Grants Program*

**PROFESSIONAL MEMBERSHIPS**

- American Fisheries Society: 2000-present
- American Society of Ichthyologists and Herpetologists: 2002-present
- American Elasmobranch Society: 2002-present
- Phi Kappa Phi Honor Society: 2002-present
- American Association for the Advancement of Science: 2008-present
- Union of Concerned Scientists: 2008-present
- Oceania Chondrichthyan Society: 2010-present

**STUDENT MENTORING**

Master's committee service

2012 – 2014: Matt Dancho, Nova Southeastern University Oceanographic Center.

Age, growth, and reproduction of the pelagic stingray *Pteroplatytrygon violacea* in the western North Atlantic Ocean.

2010 – 2014: Tiffany Weidner, Nova Southeastern University Oceanographic Center.

Vertical movements of the pelagic stingray *Pteroplatytrygon violacea* in the Southeast Atlantic Bight and Gulf of Mexico.

- 2012 – 2014: Dawn Franco, Savannah State University. Determining the life history of Atlantic croaker, *Micropogonias undulatus*, within Georgia coastal waters.
- 2012 – present: Jennifer Güt, Savannah State University. Spatial and temporal changes in juvenile fish assemblages within the mouth of the Savannah River.
- 2013 – present: Sarah Ramsden, Savannah State University. Determining the effect of season on the distribution patterns of the Atlantic stingray *Dasyatis sabina* in two tidal creeks in Savannah, Georgia, USA using acoustic telemetry.
- 2013 – present: Cameron Brinton, Savannah State University. Tidal and diel movement patterns of the Atlantic stingray *Dasyatis sabina* in tidal creeks in Georgia.
- 2013 – 2014: Shannon Rolfe, University of Central Florida. Reproductive biology of two sympatric deep-water dogfishes (*Squalus cubensis* and *S. cf. mitsukurii*) from the northern Gulf of Mexico.

Doctoral committee service

- 2012 – present: Kristene Parsons, Virginia Institute of Marine Science. Northwest Atlantic batoid populations and life history aspects of two sympatric congeneric gymnurid ray species.
- 2015 – present: Brian Moe (co-chair), Florida State University. Life history of deep-water sharks.

Other

- 2014: Erica Levine (M.S.), Deep-C intern, Florida State University
- 2015: Lyla Pirkola (B.S.), Directed Individual Study, Florida State University

**PUBLICATIONS**

Peer-reviewed manuscripts

- Grubbs, R. D., J. K. Carlson, J. G. Romine, T. Curtis, D. McElroy, C. McCandless, **C. F. Cotton**, J. A. Musick. (in review). “Save the Bay, Eat a Ray”: The Consequences of Purported Trophic Cascade Mediated by Declines in Large Coastal Shark Populations. Scientific Reports.
- Morson, J. M., E. A. Bochenek, E. N. Powell, E. C. Hasbrouck, J. E. Gius, and **C. F. Cotton**. (in review). Estimating the sex composition of the summer flounder catch using fishery-independent data. Marine and Coastal Fisheries.
- Weidner, T., **C. F. Cotton**, D. W. Kerstetter. (in revision). Habitat utilization and vertical movements of the pelagic stingray (*Pteroplatytrygon violacea*) in the western North Atlantic Ocean using pop-up archival satellite tags. Journal of Experimental Marine Biology and Ecology.
- Cotton, C. F.** and R. D. Grubbs. (in press). Biology of Deep-Water Chondrichthyans: Introduction. Deep Sea Research II.
- Musick, J. A. and **C. F. Cotton**. (in press). Bathymetric Limits of Chondrichthyans in the Deep Sea: a Re-evaluation. Deep Sea Research II.

- Cotton, C. F.**, R. D. Grubbs, J. E. Dyb, I. Fossen, and J. A. Musick. (in press). Reproduction and embryonic development in two species of North Atlantic squaliform sharks, *Centrophorus granulosus* and *Etmopterus princeps*: evidence of matrotrophy? Deep Sea Research II.
- Veríssimo, A., **C. Cotton**, G. Burgess, R. Buch, and J. Guallart. 2014. Species diversity of the deep-water gulper sharks (Squaliformes: Centrophoridae: *Centrophorus*) in North Atlantic waters – current status and taxonomic issues. Zoological Journal of the Linnean Society 172(4):803–830.
- Moura, T., E. Jones, M. W. Clarke, C. F. Cotton, P. Crozier, R. K. Daley, G. Diez, H. Dobby, J. E. Dyb, I. Fossen, S. B. Irvine, K. Jakobsdottir, L. J. López-Abellán, P. Lorange, P. Pascual-Alayón, R. B. Severinon, and I. Figueiredo. 2014. Large-scale distribution of three deep-water squaloid sharks: Integrating data on sex, maturity and environment. Fisheries Research 157:47–61.
- Cotton, C. F.**, A. H. Andrews, S. B. Irvine, G. M. Cailliet, R. D. Grubbs, and J. A. Musick. 2014. Assessment of radiometric dating for age validation of deep-water dogfish (Order: Squaliformes) finspines. Fisheries Research 151:107-113. <http://dx.doi.org/10.1016/j.fishres.2013.10.014>
- White, W. T., D. A. Ebert, G. J. P. Naylor, H. C. Ho, P. Clerkin, A. Veríssimo, and **C. Cotton**. 2013. Revision of the genus *Centrophorus* (Squaliformes: Centrophoridae): Part 1 – Redescription of *Centrophorus granulosus* (Bloch & Schneider), a senior synonym of *C. acus* Garman and *C. niaukang* Teng. Zootaxa 3752(1):035–072.
- Orlov, A. M., and **C. F. Cotton**. 2013. New data on the rare deepwater North Atlantic skate *Bathyraja pallida* (Forster, 1967) (Arhynchobatidae, Rajiformes). Journal of Ichthyology 53(7):465–477.
- Cotton, C. F.**, R. D. Grubbs, T. S. Daly-Engel, P. D. Lynch, and J. A. Musick. 2011. Age, growth and reproduction of a common deep-water shark, shortspine spurdog (*Squalus* cf. *mitsukurii*) from Hawaiian waters. Marine and Freshwater Research 62: 811–822.
- Orlov, A. M., and **C. F. Cotton**. 2011. Sexually dimorphic morphological characters in five North Atlantic deepwater skates (Chondrichthyes : Rajiformes). Journal of Marine Biology, vol. 2011, Article ID 842821, 18 pp., doi:10.1155/2011/842821.
- Newman, M. C., X. Xu, **C. F. Cotton**, K. Tom. 2011. Mercury concentrations in three species of deepwater chondrichthyans from the North Atlantic. Archives of Environmental Contamination and Toxicology 60(4):618-625.
- Cotton, C. F.** 2010. Factors Affecting Reception Range of Ultrasonic Tags in a Georgia Estuary. Marine Technology Society Journal 44(5):17-24.
- Fossen, I., **C. Cotton**, O. A. Bergstad, and J. E. Dyb. 2008. Species composition and distribution patterns of fishes captured by longlines on the Mid-Atlantic Ridge. Deep Sea Research II 55:203–217.

- Lowerre-Barbieri, S. K., L. R. Barbieri, J. R. Flanders, A. G. Woodward, and **C. F. Cotton**. 2008. Using passive acoustics to determine red drum spawning in Georgia Waters. *Transactions of the American Fisheries Society* 137(2):562–575.
- Orlov, A., **C. F. Cotton**, and I. Byrkjedal. 2006. Deepwater skates collected during 2004 R/V G.O. Sars and M/V Loran cruises in the Mid-Atlantic Ridge area. *Cybium* 30(4):35-48.
- Cotton, C. F.**, and R. L. Walker. 2004. Comparison of four commercial diets and three feeding rates for black sea bass, *Centropristis striata*, fingerlings. *Journal of Applied Aquaculture* 16(3/4):131-146.
- Cotton, C. F.**, R. L. Walker, and T. C. Recicar. 2003. Effects of temperature and salinity on growth of juvenile black sea bass with implications for aquaculture. *North American Journal of Aquaculture* 65:330-338.

#### Technical reports

- Walker, R. L., **C. F. Cotton**, and K. A. Payne. 2003. A GIS inventory of on-site septic systems adjacent to the coastal waters of McIntosh County, Georgia. University of Georgia Marine Extension Bulletin No. 27. Athens, GA.
- Walker, R. L., D. H. Hurley and **C. F. Cotton**, A. Byrum, and M. Sweeney-Reeves. 2002. Optimum seed planting size and mesh size of bottomless mesh enclosures for culturing the northern quahog *Mercenaria mercenaria* (Linnaeus, 1758) in coastal Georgia. University of Georgia Marine Extension Bulletin No. 25. Athens, GA.
- Walker, R. L., and **C. Cotton**. 2001. Oyster bed distribution as a long-term environmental indicator for the Duplin River, Sapelo Island National Estuarine Research Reserve. University of Georgia School of Marine Programs Technical Report 01-1. Athens, GA.

#### Manuscripts in Preparation

- Grubbs, R. D., **C. F. Cotton**, A. Mickle, R. Varney, T. Daly-Engel. (in prep). New data for three species of hagfishes (Myxinidae) from the northern Gulf of Mexico.
- Tomita, T., **C. F. Cotton**, M. Toda. (in prep). How do dogfish embryos respire *in utero*? Evidence from diagnostic sonography and physical models.
- Cotton, C. F.**, Rolfe, S. C., and R. D. Grubbs. (in prep). Reproductive biology of two sympatric deep-water dogfishes (*Squalus cubensis* and *S. cf. mitsukurii*) from the northern Gulf of Mexico.
- Cotton, C. F.**, A. Heil, A. Mathers, W. Driggers, and R. D. Grubbs. (in prep). Age and growth of two sympatric deep-water dogfishes (*Squalus cubensis* and *S. cf. mitsukurii*) from the northern Gulf of Mexico.
- Dancho, M. D., **C. F. Cotton**, and D. W. Kerstetter. (in prep). Age, growth, and reproduction of the pelagic stingray *Pteroplatytrygon violacea* in the western North Atlantic.

**Cotton, C. F.**, K. L. Mansfield, R. D. Grubbs, J. E. Dyb, and I. Fossen. (in prep). Oceanic playgrounds: Immature loggerhead sea turtles act as fish aggregating devices (FADs) for juvenile fishes in the North Atlantic.

**Cotton, C. F.**, W. Driggers, K. Hannon, and R. D. Grubbs. First records of pupping grounds for two species of gulper sharks (*Centrophorus* spp.) in the northern Gulf of Mexico.

#### **CONFERENCE PRESENTATIONS AND PUBLISHED ABSTRACTS**

Rolfe, S. C., C. F. Cotton, R. D. Grubbs, A. Heil. 2015. Life history characteristics of two common deep-water dogfishes (*Squalus cubensis* and *S. cf. mitsukurii*) from the northern Gulf of Mexico. Gulf of Mexico Oil Spill & Ecosystem Science Conference, 16-19 February 2015, Houston, TX.

Grubbs, R. D., C. Cotton, A. Mickle, R. Varney, T. Daly-Engel. 2015. New data for three species of hagfishes (Myxinidae) from the northern Gulf of Mexico. Gulf of Mexico Oil Spill & Ecosystem Science Conference, 16-19 February 2015, Houston, TX.

Fish, M. J., and **C. F. Cotton**. 2014. The production of fibers by gel-spinning solubilized gulf hagfish (*Eptatretus springeri*) slime threads. Deep-C Student Research Symposium, 18-19 September 2014, Tallahassee, FL.

Heil, A., **C. F. Cotton**, and R. D. Grubbs. 2014. Age and growth of two sympatric deep-water dogfishes (*Squalus cubensis* and *S. cf. mitsukurii*) from the northern Gulf of Mexico. Deep-C Student Research Symposium, 18-19 September 2014, Tallahassee, FL.

Rolfe, S. C., and **C. F. Cotton**. 2014. Reproductive biology of two sympatric deep-water dogfishes (*Squalus cubensis* and *S. cf. mitsukurii*) from the northern Gulf of Mexico. Deep-C Student Research Symposium, 18-19 September 2014, Tallahassee, FL.

**Cotton, C.**, S. Rolfe, A. Heil, and R. D. Grubbs. 2014. Life history characteristics of two common deep-water dogfishes (*Squalus cubensis* and *S. cf. mitsukurii*) from the northern Gulf of Mexico. 30<sup>th</sup> Annual Meeting of the American Elasmobranch Society (AES), July 30–August 3, 2014, Chattanooga, TN.

R. D. Grubbs, **C. F. Cotton**, T. Daly-Engel, and D. Kerstetter. 2014. Post-release survival and vertical movements of bluntnose sixgill sharks (*Hexanchus griseus*) in four oceanic regions. 30<sup>th</sup> Annual Meeting of the American Elasmobranch Society (AES), July 30–August 3, 2014, Chattanooga, TN.

Brinton, C. P., M. C. Curran, and **C. F. Cotton**. 2014. Tidal and diel movement patterns of the Atlantic Stingray *Dasyatis sabina* along a stream-order gradient. Southern Division American Fisheries Society, 23-26 January 2014, Charleston, SC.

Brinton, C. P., M. C. Curran, and **C. F. Cotton**. 2014. Tidal and diel movement patterns of the Atlantic Stingray *Dasyatis sabina* along a stream-order

- gradient. Southeastern Estuarine Research Society, 13-15 February 2014, Savannah, GA.
- Ramsden, S., M. C. Curran, and **C. F. Cotton**. 2014. Determining long-term movement and residency patterns of the Atlantic Stingray *Dasyatis sabina* in two tidal creeks in Savannah, Georgia using acoustic telemetry. Southern Division American Fisheries Society, 23-26 January 2014, Charleston, SC.
- Ramsden, S., M. C. Curran, and **C. F. Cotton**. 2014. Determining long-term movement and residency patterns of the Atlantic Stingray *Dasyatis sabina* in two tidal creeks in Savannah, Georgia using acoustic telemetry. Southeastern Estuarine Research Society, 13-15 February 2014, Savannah, GA.
- Cotton, C.** and M. C. Curran. 2013. Residency and movement patterns of three species of elasmobranchs in Georgia during the “off season”. Southeastern Estuarine Research Society, 17-19 April 2013, Charleston, SC.
- Cotton, C.** 2013. Characterizing and monitoring changes in life history parameters of deep-water dogfishes (Order: Squaliformes) in the northeastern Gulf of Mexico. Deep-C Allhands Meeting, 27-28 February 2013, Tallahassee, FL.
- Grubbs, R. D., F. Coleman, C. Koenig, J. Gelsleichter, **C. Cotton**, and M. Heithaus. 2013. Community structure of deep demersal fishes from Desoto Canyon and adjacent habitats of the eastern Gulf of Mexico after Deepwater Horizon. Gulf of Mexico Oil Spill & Ecosystem Science Conference, 20-23 January 2013, New Orleans, LA.
- Orlov A. M., **Cotton C. F.** 2012. New data on the North Atlantic deepwater skate *Amblyraja jenseni*. 16<sup>th</sup> Annual Scientific Meeting of the European Elasmobranch Association (EEA), 22-25 November 2012, Milan, Italy.
- Cotton, C.**, and R. D. Grubbs. 2012. Biology of Deep-Water Chondrichthyans: Introduction. 28<sup>th</sup> Annual Meeting of the American Elasmobranch Society (AES), 8-14 August 2012, Vancouver, BC.
- Cotton, C.**, J. K. Galbraith, R. D. Grubbs, and J. A. Musick. 2012. Reproduction and embryonic development in two species of North Atlantic squaliform sharks, *Centrophorus cf. niaukang* and *Etmopterus princeps*: evidence of matrotrophy? 28<sup>th</sup> Annual Meeting of the American Elasmobranch Society (AES), 8-14 August 2012, Vancouver, BC.
- Grubbs, R. D., J. A. Gelsleichter, M. R. Heithaus, K. Gastrich, and **C. F. Cotton**. 2012. Demersal elasmobranch assemblages associated with Desoto Canyon and the continental slope of the eastern Gulf of Mexico relative to the Deepwater Horizon oil spill. 28<sup>th</sup> Annual Meeting of the American Elasmobranch Society (AES), 8-14 August 2012, Vancouver, BC.
- Veríssimo, A. and **C. Cotton**. 2012. A revision of the gulper sharks (genus *Centrophorus*) in North Atlantic waters. 28<sup>th</sup> Annual Meeting of the American Elasmobranch Society (AES), 8-14 August 2012, Vancouver, BC.

- Musick, J. and **C. Cotton**. 2012. Bathymetric limits of chondrichthyans in the deep sea. 28<sup>th</sup> Annual Meeting of the American Elasmobranch Society (AES), 8-14 August 2012, Vancouver, BC.
- Moura, T., E. Jones, **C. Cotton**, S. Irvine, R. Daley, M. Clarke, P. Lorange, K. Jakobsdottir, L. López Abellán, P. Crozier, G. Diez, I. Fossen, J. Dyb, R. Severino, P. Pascual, and I. Figueiredo. 2012. Spatial segregation of three cosmopolitan deep-water sharks. The Scientific Basis for Ecosystem Based Resource Management and Monitoring in the Deep Waters of the Mediterranean & North Atlantic: A Joint Symposium Organized by the EC FP7 Projects: CoralFISH and Deepfishman, August 28-31, 2012, Galway, Ireland.
- Grubbs, R. D., J. A. Gelsleichter, M. R. Heithaus, K. Gastrich, and **C. F. Cotton**. 2012. Demersal fish assemblages associated with Desoto Canyon and the continental slope of the eastern Gulf of Mexico relative to the Deepwater Horizon oil spill. 16<sup>th</sup> Ocean Sciences Meeting, 20-24 February 2012, Salt Lake City, UT.
- Morson, J. M., E. N. Powell, E. A. Bochenek, **C. Cotton**, and E. Hasbrouck. 2011. Sex Ratio of Summer Flounder Commercial and Recreational Landings. 141<sup>st</sup> Annual Meeting of the American Fisheries Society (AFS), September 4-8, 2011, Seattle, Washington.
- Cotton, C. F.**, J. A. Musick, and R. D. Grubbs. 2010. Reproduction and embryonic development in two species of North Atlantic squaliform sharks, *Centrophorus cf. niaukang* and *Etmopterus princeps*: evidence of matrotrophy? Sharks International, June 7-11, 2010, Cairns, Australia.
- Cotton, C.**, D. Grubbs, T. Daly-Engel, and J. Musick. 2009. Age, growth and reproduction of *Squalus mitsukurii* from Hawaiian waters. 25<sup>th</sup> Annual Meeting of the American Elasmobranch Society (AES), 23-27 July 2009, Portland, OR.
- Ha, D., D. Grubbs, **C. Cotton**, and J. Musick. 2009. Shark CPUE trends from Virginia's Atlantic waters: Trends 1972-2008. 25<sup>th</sup> Annual Meeting of the American Elasmobranch Society (AES), 23-27 July 2009, Portland, OR.
- Grubbs, D., **C. Cotton**, and T. Daly-Engel. 2008. A comparison of diel vertical movements of bluntnose sixgill sharks (*Hexanchus griseus*) in the Atlantic and Pacific Oceans. 24<sup>th</sup> Annual Meeting of the American Elasmobranch Society (AES), 23-27 July 2008, Montreal, Canada.
- Cotton, C. F.**, and J. A. Musick. 2007. Aging chondrichthyan fishes using dorsal fin spines: utility or futility? MAR-ECO Field Phase Workshop, September 28-30 2007, Reykjavik, Iceland.
- Cotton, C. F.** and J. A. Musick. 2007. Aging chondrichthyan fishes using dorsal fin spines: utility or futility? 23<sup>rd</sup> Annual Meeting of the American Elasmobranch Society (AES), 12-17 July 2007, St. Louis, MO.
- Verissimo, A. and **C. Cotton**. 2007. In deep dark waters - revision of the genus *Centrophorus* (Squaliformes) in the western North Atlantic. 23<sup>rd</sup> Annual Meeting of the American Elasmobranch Society (AES), 12-17 July 2007, St. Louis, MO.



- Buch, R., C. Sanford, G. Burgess, J. Castro, **C. Cotton**, and J. Galbraith. 2007. A morphometric analysis of the genus *Centrophorus* in the northwestern Atlantic. 23<sup>rd</sup> Annual Meeting of the American Elasmobranch Society (AES), 12-17 July 2007, St. Louis, MO.
- Orlov A.M., **Cotton C. F.** 2007. Sexual dimorphism of external morphology in some deepwater skates (Rajidae: Rajiformes: Chondrichthyes) of the North Atlantic. 11<sup>th</sup> Annual Scientific Meeting of the European Elasmobranch Association (EEA), 23-26 November 2007, Brest, France.
- Orlov, A., **C. Cotton**, I. Fossen, and J. E. Dyb. 2006. New data on two deepwater skates, *Bathyraja richardsoni* and *Rajella kukujevi*, from the Northeast Atlantic. 22<sup>nd</sup> Annual Meeting of the American Elasmobranch Society (AES), 12-17 July 2006, New Orleans, LA.
- Cotton, C. F.**, I. Fossen, J. Dyb, O. Bergstad, and J. A. Musick. 2006. Community structure of demersal ichthyofauna captured on longlines in two areas along the northern Mid-Atlantic Ridge. 13<sup>th</sup> Ocean Sciences Meeting, 20-24 February 2006, Honolulu, HI.
- Sutton, T., F. Porteiro, F. Uiblein, M. Biscoito, I. Byrkjedal, **C. Cotton**, J. K. Galbraith, T. Iwamoto, G. Menezes, P. Moller, A. Orlov, O. Bjelland, A. Dolgov, G. Gjelsvik, M. Heino, A. Hoines, N. King, S. Klimpel, K. Nakaya, R. Santos, T. Falkenhaus, O. Godo, O. Bergstad. 2006. Overlap between pelagic and demersal fishes at the Mid-Atlantic Ridge. 13<sup>th</sup> Ocean Sciences Meeting, 20-24 February 2006, Honolulu, HI.
- Porteiro, F., T. T. Sutton, , F. Uiblein, M. Biscoito, I. Byrkjedal, **C. Cotton**, J. Galbraith, T. Iwamoto, G. Menezes, P. R. Moller, A. M. Orlov, O. Bjelland, A. Dolgov, G. Gjelsvik, M. Heino, A. S. Hoines, N. King, S. Klimpel, K. Nakaya, R. S. Santos, T. Falkenhaus, O. R. Godoe, O. A. Bergstad. 2006. Fishes of the northern Mid-Atlantic Ridge collected during the MAR-ECO cruise in June/July 2004. 13<sup>th</sup> Ocean Sciences Meeting, 20-24 February 2006, Honolulu, HI.
- Orlov, A., **C. Cotton**, I. Fossen, J. E. Dyb. 2005. New data on two deepwater skates *Bathyraja richardsoni* and *Rajella kukujevi* from the North East Atlantic. 9<sup>th</sup> Annual Scientific Meeting of the European Elasmobranch Association (EEA), 23-26 November 2005, Monaco.
- Cotton, C. F.**, J. E. Dyb, and I. Fossen. 2005. Analysis of the catch data from the M/S Loran. MAR-ECO Field Phase Workshop, June 3-4 2005, Lisbon, Portugal.
- Cotton, C. F.**, I. F. Fossen, J. E. Dyb, and J. A. Musick. 2005. Community structure of demersal ichthyofauna sampled by longlines in two areas along the Mid-Atlantic Ridge: A summary of the data collected on the M/S Loran during the MAR-ECO project. 21<sup>st</sup> Annual Meeting of the American Elasmobranch Society (AES), 6-11 July 2005, Tampa, FL.
- Cotton, C. F.**, R. L. Walker, and T. C. Recicar. 2002. Effects of temperature and salinity on growth of juvenile black sea bass, *Centropristis striata*, with implications for aquaculture. 17<sup>th</sup> Annual Meeting of the Georgia Chapter of the American Fisheries Society, 29-31 January 2002, Augusta, GA.

**Cotton, C. F.**, and R. L. Walker. 2002. Optimal commercial diet and feed ration for black sea bass, *Centropristis striata*, fingerlings. 17<sup>th</sup> Annual Meeting of the Georgia Chapter of the American Fisheries Society, 29-31 January 2002, Augusta, GA.

**Cotton, C.**, and R. L. Walker. 2001. Aquaculture of black sea bass, *Centropristis striata*. Aquaculture 2001 Meeting, January 23-27 2001, Orlando, FL.

**Cotton, C.**, and R. L. Walker. 2000. Aquaculture of black sea bass, *Centropristis striata*. American Fisheries Society (AFS) Southern Division Midyear Meeting, 3-6 February 2000, Savannah, GA.

## TEACHING EXPERIENCE

**Savannah State University:** 2012 - 2013

Designed and taught MSCI 3501K, a 4-credit undergraduate course in Ichthyology with laboratory section.

Designed and taught MSCI 7743, a 3-credit graduate course in Fisheries Oceanography.

**Virginia Institute of Marine Science:** 2008 - 2009

Guest lecturer in Ichthyology (MS-666), "Deep-Sea Fishes"

**Virginia Institute of Marine Science:** 2002 - 2007

Taught MS-666-L Ichthyology Lab, including lectures, lab exercises, and field trip organization.

**Williamsburg-James City County School System, Merrimac Juvenile Detention Center:** 2002 - 2004

Taught Oceanography course to detained high school students. I generated a lesson plan, chapter outlines, study guides and tests. Course was designed for an advanced high school curriculum, however I adjusted the scope according to the capabilities of individual inmates.

**Virginia Sea Grant:** 2003

Teaching assistant for a summer course in 'Fisheries Science and Management' for high school teachers (MS-548 Special Topics). Set up labs and provided assistance with lab and computer exercises. Organized field trips and assisted in field sample collections.

**University of Georgia, Department of Marine Sciences:** 1999 - 2000

Taught General Marine Science Labs to undergraduate students. Labs covered basic chemical, physical and biological aspects of marine science.

## GRANTS/AWARDS

- FishSource species profile contract: "Cownose Ray", 2013
- American Elasmobranch Society Symposium Grant, 2012
- Sharks International Travel Award, 2010
- John M. & Marilyn Zeigler Student Achievement Award, 2009
- William and Mary Student Activities Conference Fund, 2009

- AAAS/Science Program for Excellence in Science, 2008
- William and Mary Student Activities Travel Grant, 2007
- American Society of Ichthyologists and Herpetologists Travel Grant, 2007
- VIMS Graduate Student Association Travel Grant, 2007
- Graduate Student International Travel Grant, awarded by the Reves Center for International Studies at the College of William and Mary, 2005
- Second place award for Best Student Paper at the Georgia Chapter of the American Fisheries Society Annual Meeting, 2002

## PROFESSIONAL SKILLS

Operation of a wide range of small craft, including Zodiac inflatable boats. Some experience with piloting larger ( $\approx 20$  m) vessels.

Familiarity and experience with a variety of fishing gear and techniques, including: vertical, demersal, and pelagic longline gear, gill nets, trammel nets, seine nets, pound nets, scallop dredge, trawl gear (otter, Tucker, and MOCNESS trawls), traps, hook and line, electroshocking.

Familiarity and experience with many standard fisheries techniques, including: managing field surveys, taxonomic identification of fishes; dissection and specimen processing; age determination in a wide range of elasmobranchs and teleosts, using otoliths, fin spines, vertebrae and branchiostegals; growth modeling; ultrasonic telemetry; popup archival satellite tags (PAT); standard tagging techniques using a variety of tag types, harness design, implantation methods; assessment of gonad maturity stages; larval identification; audible identification of soniferous fishes.

Museum curation and specimen preservation.

SCUBA certified (NASDS) since 1998, more than 75 dives logged.

## SEA EXPERIENCE ( $\approx 962$ days at sea)

### **Florida State University:** 2014 (October)

Longline survey of deep-water elasmobranch communities of the northeastern Gulf of Mexico and Desoto Canyon. *R/V Apalachee*, 10 days at sea. Served as Watch Chief. PI's: Dr. Charles Cotton, Dr. Dean Grubbs.

### **Florida State University:** 2014 (July)

Longline survey of deep-water elasmobranch communities of the northeastern Gulf of Mexico and Desoto Canyon. *R/V Apalachee*, 10 days at sea. Served as Watch Chief. PI's: Dr. Charles Cotton, Dr. Dean Grubbs.

### **Florida State University:** 2014 (May)

Trap survey of deep-water fish communities of the Alabama Pinnacles, northeastern Gulf of Mexico. *R/V Apalachee*, 5 days at sea. Served as Watch Chief. PI's: Dr. Sandra Brooke, Dr. Charles Cotton.

### **Florida State University:** 2014 (January)

Longline survey of deep-water elasmobranch communities of the northeastern Gulf of Mexico and Desoto Canyon. *R/V Apalachee*, 2 days at sea. Served as Watch Chief. PI's: Dr. Charles Cotton, Dr. Dean Grubbs.

**Florida State University: 2013 (October)**

Longline survey of deep-water elasmobranch communities of the northeastern Gulf of Mexico and Desoto Canyon. *R/V Apalachee*, 8 days at sea. Served as Watch Chief. PI's: Dr. Charles Cotton, Dr. Dean Grubbs.

**Florida State University: 2013 (July)**

Longline survey of deep-water elasmobranch communities of the northeastern Gulf of Mexico and Desoto Canyon. *R/V Apalachee*, 7 days at sea. Served as Watch Chief. PI's: Dr. Charles Cotton, Dr. Dean Grubbs.

**Savannah State University: 2012 – 2013**

Conducted longline and rod-and-reel sampling for elasmobranchs, surgical implantation of acoustic transmitters, maintenance and downloading of acoustic monitoring receivers, active telemetry of tagged fishes, using a variety of small vessels,  $\approx$  50 days at sea. Served as Chief Scientist. PI: Dr. Carla Curran.

**Florida Institute of Oceanography/Florida State University: 2012 (October)**

Longline survey of deep-water elasmobranch communities of the northeastern Gulf of Mexico and Desoto Canyon. *R/V Weatherbird II*, 9 days at sea. Served as Watch Chief. PI's: Dr. Felicia Coleman, Dr. Dean Grubbs, Dr. Chris Koenig.

**Florida Institute of Oceanography/Florida State University: 2012 (April)**

Longline survey of deep-water elasmobranch communities of the eastern Gulf of Mexico and Desoto Canyon. *R/V Weatherbird II*, 9 days at sea. Served as Watch Chief. PI: Dr. Dean Grubbs.

**Florida Institute of Oceanography/Florida State University: 2011 (August)**

Longline survey of deep-water elasmobranch communities of the eastern Gulf of Mexico and Desoto Canyon. *R/V Weatherbird II*, 11 days at sea. Served as Watch Chief. PI: Dr. Dean Grubbs.

**Florida Institute of Oceanography/Florida State University: 2011 (April)**

Longline survey of deep-water elasmobranch communities of the eastern Gulf of Mexico and Desoto Canyon. *R/V Weatherbird II*, 18 days at sea. Served as Watch Chief. PI: Dr. Dean Grubbs.

**Virginia Institute of Marine Science: 2002 – 2008**

Longline survey of shark and ray abundance in Virginia waters. *R/V Bay Eagle* and small vessels,  $\approx$  50 cruises, 200 days at sea. Coordinated the 2008 field season. PI: Dr. Jack Musick.

**National Science Foundation, U. S. Antarctic Program: 2008**

Participant on the 2008 LTER cruise. *R/V L. M. Gould* and Zodiac inflatable vessels, 41 days at sea. Chief Scientist: Dr. Langdon Quetin.

**Florida Institute of Oceanography/Mote Marine Laboratory: 2007**

Longline survey of deep-water elasmobranch communities of the eastern Gulf of Mexico. *R/V Suncoaster*, 4 days at sea. PI: Dr. Jose Castro.

**Virginia Institute of Marine Science: 2002 – 2010**

Field biologist (workshop program) for numerous fisheries monitoring surveys at VIMS, including: Striped Bass Tagging and Monitoring Program, ChesMAMP Trawl Survey, NEAMAP Trawl Survey, Oyster Patent-Tong Survey, Juvenile Trawl Survey, American Eel Survey, Sea Turtle Aerial Survey, ≈ 100 days at sea.

**Virginia Institute of Marine Science: 2006**

Served as a fisheries observer onboard a commercial scallop boat. Subsampled scallop catch, measured finfish bycatch, recorded sea turtle interactions. *F/V Carolina Boy* 10 days at sea. Chief Scientist: Dave Rudders

**Florida Institute of Oceanography/Mote Marine Laboratory: 2005**

Longline survey of deep-water elasmobranch communities of the eastern Gulf of Mexico. *R/V Suncoaster*, 6 days at sea. PI: Dr. Jose Castro.

**National Marine Fisheries Service, Northeast Fisheries Science Center: 2004**

Volunteer on the Winter Bottom Trawl Survey (AL200402). *R/V Albatross*, 10 days at sea. Chief Scientist: John Galbraith.

**National Marine Fisheries Service, Northeast Fisheries Science Center: 2004**

Participant on the Bear Seamount Biodiversity Survey. Served as Watch Chief. *R/V Delaware II*, 10 days at sea. PI: Dr. Mike Vecchione.

**Census of Marine Life, MAR-ECO Expedition: 2004**

Participant on the 2004 expedition to the Mid-Atlantic Ridge. *M/S Loran*, 21 days at sea. Served as lead taxonomist for this vessel. Chief Scientist: Jan Erik Dyb.

**Florida Institute of Oceanography/Mote Marine Laboratory: 2003**

Longline survey of deep-water elasmobranch communities of the eastern Gulf of Mexico. *R/V Suncoaster*, 6 days at sea. PI: Dr. Jose Castro.

**Virginia Institute of Marine Science: 2003**

Served as a fisheries observer onboard a commercial scallop boat. Subsampled scallop catch, measured finfish bycatch, recorded sea turtle interactions. *F/V Billy Haver*, 15 days at sea.

**University of Georgia Marine Extension Service, Shellfish Research and Aquaculture Lab: 1998 – 2002**

Served as Marine Extension agent to consult and aid clam farmers and tend field experiments. Small vessels, ≈ 200 days at sea.

**University of Georgia Marine Institute: 1995 – 1998**

Conducted trammel net surveys, plankton tows, active telemetry, and water quality monitoring, using small vessels, ≈ 200 days at sea. PI's: Drs. Susan and Luiz Barbieri.

**COMMUNITY SERVICE:**

- VIMS 'After Hours' lecture: The Rays of Chesapeake Bay

- Member of the VIMS 'Green Team'
- Public tours of the VIMS Fish Collection
- Volunteer for VIMS Marine Science Day
- Volunteer for the Sapelo Island Cultural and Revitalization Society
- Co-founder of the Sapelo Island Recycling Program, Sapelo Island, GA
- Volunteer chaperone for annual Sapelo Island Kids Week
- Georgia Adopt-a-Stream volunteer and trainer
- Volunteer for the Sanctuary on the Sapelo bird rehabilitation center
- Volunteer for the Butler Island Bird Banding Station