

**D. Michelle McComb**  
Biological Sciences, Florida Atlantic University  
777 Glades Road, Boca Raton, Florida 33431  
dmccomb@fau.edu, 786-258-1781

### EDUCATION

PhD Biology Florida Atlantic University, 2009  
Dissertation: Visual Adaptations of Sharks, Skates and Rays.

MS Biology Florida International University, 2004  
Thesis: Geographic Variation in Maternal Provisioning of Thyroid Hormones in Egg Yolk of Embryonic Bonnethead Sharks (*Sphyrna tiburo*).

BS Biology Florida International University, 2000

### PROFESSIONAL AND TEACHING EXPERIENCE

**Adjunct Professor, 2010- Present**

Florida Atlantic University, Boca Raton, FL  
Life Science Course

**Research Assistant, 2007-2009**

Florida Atlantic University, Boca Raton, FL  
Sensory biology and visual ecology of sharks, skates and stingrays.

**Teaching Assistant, 2006-2009**

Florida Atlantic University, Boca Raton, FL  
Biodiversity, Life Science, Media Specialist and Webmaster.

**Education Director, 2004-2005**

Shake-A-Leg Miami (Non-Profit), Miami, FL  
Developed, designed and implemented federally funded marine science curriculum.

**Teaching Assistant, 2002-2004**

Florida International University, Miami, FL  
General Biology II and Marine Biology

**Research Assistant, 2003**

Florida International University, Miami, FL  
Collaboration with Mote Marine Laboratory Center for Aquaculture; marine fish reproductive biology.

**Biological Technician, 2000-2001**

Florida International University, Miami, FL  
Aquatic Ecology Laboratory, data analysis and report writing, Dr. Joel Trexler.

**Research Intern, 1999**

Coastal Research and Education, Inc., Miami, FL

**PADI Open Water SCUBA Instructor, 1996-1997**

Lady Cyana Divers, Islamorada, FL

**Branch Manager, 1991-1998**

Employer's Unity, Inc., Miami, FL  
Represented clients during administrative law hearings. Managed eastern region, supervised and trained employees. Led educational workshops on employee management.

## RESEARCH EXPERIENCE

### **Charles Darwin University, Darwin, Australia**

Field research, shark vision, 2008

### **University of Hawaii, Hawaii Institute of Marine Biology, Oahu**

Field research, shark vision, 2007

### **Mote Marine Laboratory, Sarasota, Florida**

Shark research, 2002-present

### **Research Vessel Bellows, Florida Institute of Oceanography, St. Petersburg**

Shark study expedition, 2007

### **National Geographic Amazon Expedition, Manaus, Brazil**

Freshwater stingray conservation project, 2005

### **Research Vessel Suncoaster, Florida Institute of Oceanography, St. Petersburg**

Shark study expedition, 2003

### **Research Vessel Tiburon, Marquesas Keys, Florida**

Shark movement & conservation assessment, 2003

### **Everglades National Park, Homestead, Florida**

Everglades fish radio telemetry project, 2003

### **Bimini Biological Field Station, Bahamas**

Lemon shark conservation initiative, 2001

### **University of Cape Town, South Africa**

Southern Waters Ecological Research Program, endangered species research, 2001

### **National Geographic, Key Largo, Florida**

Production assistant, Sea Stories with Dr. Sylvia Earle, 1999

## GRANTS, FELLOWSHIPS AND AWARDS

- 2010** Florida Atlantic University Integrative Biology Program Student Alumni Award
- 2008** National Council for Scientific and Technological Development  
“Improvement of the Quality of the Ornamental Fish Exported by the State of Amazonia”  
(\$60,000) Collaborators: Dr. J. Marcon, Dr. R. Brinn.
- 2007** American Society of Ichthyologists and Herpetologists Travel Award (\$250)  
Florida Atlantic University Travel Award (\$400)  
PADI Project AWARE Foundation Grant (\$1,000)
- 2006** Florida Atlantic University Newell Doctoral Fellowship (\$5,000)  
Florida Atlantic University Travel Award (\$400)  
Junior Women’s Club of Boca Raton Scholarship Award (\$1,500)  
FAU Graduate Fellowship for Academic Excellence (\$5,000)
- 2005** FAU Graduate Research Symposium First Place (\$100)
- 2003** American Elasmobranch Society Distinguished Gruber Award, Best Student Presentation  
American Elasmobranch Society Travel Award (\$400)  
Florida International University Graduate Student Association Travel Award (\$400)

PUBLICATIONS

- McComb, D.M.**, and Kajiura, S.M. Visual and Electrosensory Integration in Hammerhead Sharks. *Journal of Experimental Biology*. *Submitted*.
- McComb, D.M.**, Frank, T.M., Hueter, R.E., Kajiura, S.M. Temporal resolution and spectral sensitivity of the visual system of three coastal shark species from different light environments. *Physiological and Biochemical Zoology*, 83:299-307 (with cover).
- McComb, D.M.**, Tricas, T., Kajiura, S.M. 2009. Enhanced Visual Fields in Hammerhead Sharks. *Journal of Experimental Biology*, 212:4010-4018.
- Gomez, L., Brinn, R., Marcon, J., Dantas, L., Brandao, F., Abreu, J., Lemos, P., **McComb, D.**, Baldisserotto, B. 2008. The benefits of using probiotic Efinol-L during transportation of cardinal tetra, *Paracheirodon axelrodi* (Schultz) in Amazon. *Aquaculture Research*, 208:1-9.
- Gomez, L., Brinn, R., Marcon, J., Araujo, L., Brandao, F., Abreu, J., **McComb, D.**, Baldisserotto, B. 2008. Using Efinol-L during transportation of marbled hatchetfish, *Carnegiella strigata* (Gunther). *Aquaculture Research*, 39:1292-1298.
- McComb, D.M.**, and S.M. Kajiura. 2008. Visual fields of four batoid fishes: a comparative study. *Journal of Experimental Biology*, 211:482-490.
- Schwab, I.R. and **McComb, D.M.** 2007. Keeping a cool head. *British Journal of Ophthalmology*, 91:138 (with cover).
- McComb, D.M.**, Gelsleichter, J., Manire, C.A., Brinn, R., and Brown, C.L. 2005. Comparative thyroid hormone concentration in maternal serum and yolk of the bonnethead shark (*Sphyrna tiburo*) from two sites along the coast of Florida. *General and Comparative Endocrinology*, 144:167-173 (with cover).

PROFESSIONAL SOCIETY SERVICE

- 2008-Present American Elasmobranch Society (AES) Annual Calendar Founder and Coordinator
- 2006-2008 AES Auction Coordinator
- 2006-2008 AES Student Affairs Committee Member
- 2007 AES Annual Banquet Moderator
- 2007 AES Best Student Paper "Gruber Award" Judge
- 2007 AES Physiology Session Moderator

## PRESENTATIONS

### Conference Participation

- 2010 D.M. McComb & S.M. Kajiura. Visual and electrosensory integration in hammerhead sharks. Society of Integrative and Comparative Biologists.
- 2009 D.M. McComb & S.M. Kajiura. Evolution and function of the hammerhead shark cephalofoil. Functional implications of sensory receptor distribution. American Elasmobranch Society Annual Meeting (AES).
- 2008 D.M. McComb & S.M. Kajiura. Visual fields in carcharhinid and sphyrnid sharks. AES.
- 2007 D.M. McComb & S.M. Kajiura. Visual fields of four batoid fishes: a comparative study. AES.
- 2005 D.M. McComb, J. Gelsleichter, R. Brinn, C.L. Brown. Maternal provisioning of thyroid hormones in bonnethead sharks. AES.
- 2003 D.M. McComb & C.L. Brown. Geographic variation in thyroid hormones within egg yolk of Embryonic bonnethead sharks. AES.

### Invited Seminars and Lectures

- 2010 South Florida Science Museum, West Palm Beach, FL
- 2009 Florida International University, Miami, FL--Charles Darwin Biology Seminar Series  
USA Dive Club, Fort Lauderdale, FL  
Palm Beach County Coral Reef Research Team, West Palm Beach, FL
- 2008 Hammerhead Scuba Diving Club, Delray Beach, FL  
Florida International University, Miami, FL
- 2007 Indian Pines Elementary, West Palm Beach, FL  
Gumbo Limbo Nature Center, Boca Raton, FL
- 2005 Florida International University, Miami, FL  
LaSalle High School, Miami, FL

## INTERNATIONAL MEDIA

<b>Radio</b>	<b>Program Title</b>	<b>Date</b>
National Geographic	National Geographic Weekend	2009
CBC Radio One	Quirks and Quarks	2009
<b>Television</b>		
Discovery Channel Canada	Daily Planet: Shark Vision	2008
Discovery Channel	Ocean of Fear: The Story of the USS Indianapolis	2007
Discovery Channel	Perfect Predators	2007
LOOKS TV (Germany)	TBA	2006
National Geographic	Explorer: Ultimate Shark	2006
<b>Print</b>		
BBC Wildlife Magazine	Why Hammerheads Have Hammer heads	2010
National Geographic Magazine	Hammerhead Shark Vision	2010
Attention Perception Psychophysics	How the Hammerhead Got Its Eyes	2010
BBC Earth News	Hammerhead Shark Mystery Solved	2009
National Geographic News	Hammerhead Sharks Have "Human" Vision	2009

Discovery News	Hammerhead Sharks Have Stereo Vision	2009
New Scientist	Why the Hammerhead Shark Got Its Hammer	2009
Science Daily	Wide Heads Give Hammerhead Sharks Exceptional Stereo View	2009
The Guardian	Sight Tests Reveal Advantage of Hammerheads Extraordinary Heads	2009
The Telegraph	All Seeing Hammerhead Sharks Could Have the Best Vision in Animal Kingdom	2009
Inside JEB	Hammerheads Wide Heads Give Impressive View	2009

## REFERENCES

Dr. Stephen Kajiura (*PhD Advisor*)  
 Biological Sciences  
 Florida Atlantic University  
 777 Glades Road, Boca Raton, FL 33431  
 561-297-2677  
 kajiura@fau.edu

Dr. Christopher Brown (*MS Advisor*)  
 National Oceanic and Atmospheric Administration  
 Northeast Fishery Science Center  
 212 Rogers Avenue, Milford, CT 06460  
 203- 882-6540  
 cbrown@clam.mi.nmfs.gov

Dr. Robert Hueter (*Collaborator*)  
 Director, Center for Shark Research  
 Mote Marine Laboratory & Aquarium  
 1600 Ken Thompson Parkway  
 Sarasota, FL 34236  
 941-388-1827  
 rhueter@mote.org

Dr. Tammy Frank (*Collaborator*)  
 Associate Research Professor  
 Harbor Branch Oceanographic Institute  
 5600 US 1 North  
 Fort Pierce, FL 34946  
 772-465-2400 ext. 311  
 tfrank3@hboi.fau.edu