

CURRICULUM VITAE

Christopher Robert Malinowski, PhD
Ocean First Institute
Boulder, CO 80301
Phone: 920.277.3332•email: chris@oceanfirstinstitute.org

PROFESSIONAL PREPARATION:

- Ph.D. Biological Science, Florida State University, FL, 2019
Graduate Advisors: **Dr. Felicia Coleman (Main Advisor), Dr. Christopher Koenig (Co-Advisor)**
Credits earned: 177
- M.Sc. Biological Science, Florida Atlantic University, FL, 2011
Dr. Denise Herzing (Main Advisor)
Credits earned: 61
- B.Sc. Biological Science (Major: Biology, Minor: Chemistry)
University of Wisconsin-Stevens Point, Stevens Point, WI, 2006
Credits earned: 134

PROFESSIONAL APPOINTMENTS:

- March, 2022-current Director of Research and Conservation, Ocean First Institute
- May, 2021-2022 Member of SSC Grouper and Wrasse Specialist Group, International Union for Conservation of Nature (IUCN)
- Feb, 2021-current **Senior Scientist**, South Florida Water Management District, Coastal Ecosystems Section, Applied Sciences Bureau, West Palm Beach, FL.
Duties and accomplishments: I research and manage effects of controlled water delivery (quality, quantity, timing of delivery) in South Florida to coastal ecosystems related to impacts on habitats, fishes and other aquatic organisms.
- Mar, 2019-Feb, 2021 **Post-Doctoral Research Assistant**, Forestry and Natural Resources, Purdue University, IN
Duties and accomplishments: Currently I develop and publish independent research, synthesize data, statistically analyze data, mentor students, and instruct courses. Research includes fish community and population ecology; microplastics, mercury and other contaminant impacts on aquatic food webs and ecosystems; and fish gut microbiome association with diet and stable isotopes.
- Sep, 2013-Aug, 2017 **Research Assistant**, Florida State University Coastal and Marine Laboratory, FL
Duties and accomplishments: While completing my PhD, I additionally worked to design, plan, implement, and oversee fieldwork related to deep sea and coastal reef fish ecology sampling and monitoring studies; collected samples and analyzed data; wrote technical reports, and managed multiple databases. I provided technical guidance to field station personnel regarding sampling techniques for environmental contaminants, diet, stable isotopes, and nutrients in water samples. I investigated the impacts of various contaminants on fish from a variety of coastal and offshore environments.
- Jul, 2012-Aug, 2013 **Fish Ecology Database Manager**, Deep-C Research Consortium, Florida State University, Coastal and Marine Laboratory, FL
Duties and accomplishments: In response to the 2010 Deepwater Horizon oil spill in the Gulf of Mexico, I collected samples and data for a multi-institutional and interdisciplinary consortium related to community ecology and various oil-related contaminants; organized and managed a relational database for all collected deep sea organisms and analytical data.

- Jan, 2012-Jul, 2012 **Research Associate**, Fauna Concentration Project in the Florida Everglades, Florida Atlantic University, FL
Duties and accomplishments: Planned, implemented, and oversaw seasonal collection of wetland species related to the diet of wading birds, and recording of environmental data. The collection of samples and data required navigation to remote sites in the Florida Everglades via helicopter and air boat.
- Jun, 2011- May, 2012 **Adjunct Faculty**, Florida Atlantic University, FL
Duties and accomplishments: Instructor of record for Anatomy and Physiology lab courses.
- Jan, 2007- Aug, 2008 **Research Technician**, Fish Ecology Lab, School of Freshwater Sciences, University of Wisconsin-Milwaukee, WI
Duties and accomplishments: Participated and assisted in fieldwork planning and execution; worked on various projects related to fish diet, and invasive and native fish species population and community dynamics.

PUBLICATIONS:

- Malinowski, C.R.**, J.C. Doll and T.O. Höök (2022). Nearshore fish assemblage dynamics in southern Lake Michigan: 1984–2016, *Journal of Great Lakes Research*, <https://doi.org/10.1016/j.jglr.2022.04.018>.
- Stevens, P. W., Paperno, R., Beal, J. L., MacDonald, T. C., Miller, H. N., Klarmann, P. A., & **Malinowski, C. R.** (2022). Identification of fish habitat hotspots for use in prioritizing conservation and restoration projects in coastal rivers. *Environmental Biology of Fishes*, 1-15.
- Malinowski, C.R.**, F.C. Coleman, C.C. Koenig (2021). Four reasons that Goliath Grouper fishery should remain closed. Letter to FWC Commissioners. Published on website: <https://www.chrismalinowski.org/goliath-grouper-conservation>.
- Liu, Z., **Malinowski, C. R.**, & Sepúlveda, M. S. (2021). Emerging trends in nanoparticle toxicity and the significance of using *Daphnia* as a model organism. *Chemosphere*, 132941.
- Perrault, J. R., Barron, H. W., **Malinowski, C. R.**, Milton, S. L., & Manire, C. A. (2021). Use of intravenous lipid emulsion therapy as a novel treatment for brevetoxicosis in sea turtles. *Scientific reports*, 11(1), 1-12.
- Malinowski, C.R.**, N.I. Stacy, F.C. Coleman, J.A. Cusick, C.M. Dugan, C.C. Koenig, N.K. Ragbeer, and J.R. Perrault (2021). Mercury offloading in gametes and potential adverse effects of high mercury concentrations in blood and tissues of Atlantic Goliath Grouper *Epinephelus itajara* in the southeastern United States. *Science of the Total Environment*, 146437.
- Malinowski, C.R.**, J.R. Perrault, F.C. Coleman, C. Cray, C.C. Koenig, J.M. Stilwell, N.I. Stacy (2020). The iconic Atlantic Goliath Grouper (*Epinephelus itajara*): A comprehensive assessment of health indices in the southeastern United States population. *Frontiers in Veterinary Science*, 7, 635.
- Koenig, C.C., F.C. Coleman, and **C.R. Malinowski** (2020). Atlantic Goliath Grouper of Florida: To Fish or Not to Fish. *Fisheries* 45(1):20-32. *Feature article for January issue*.
- Malinowski, C.R.** (2019) High mercury concentrations in Atlantic Goliath Grouper: spatial analysis of a vulnerable species. *Marine Pollution Bulletin* 143: 81-91.
- Malinowski, C.R.**, J. Cavin, J. Chanton, L. Chasar, F.C. Coleman, C. Koenig (2019). Trophic relationships and niche partitioning of Red Drum *Sciaenops ocellatus* and Common Snook *Centropomus undecimalis* in coastal estuaries of South Florida. *Estuaries and Coasts* 42(3): 842-856.
- Malinowski, C.R.**, F.C. Coleman, C.C. Koenig, J. Locascio, D. Murie (2019). Are Atlantic goliath grouper, *Epinephelus itajara*, establishing more northerly spawning sites? Evidence from the northeast Gulf of Mexico. *Bulletin of Marine Science* 95(3): 371-391. *Feature article for July issue*.
- Malinowski, C.R.** (2017). From field notes to field guide: a descriptive and picturesque look into the marine fishes of Florida. Review of “Marine Fishes of Florida”, by D. Snyder and G. Burgess. *Environmental Biology of Fish*: 889-891.

- Koenig, C.C., F.C. Coleman, **C.R. Malinowski**, et al. (2017). Diel, lunar, and seasonal spawning patterns of the Atlantic goliath grouper, *Epinephelus itajara*, off Florida, United States. *Bulletin of Marine Science* 93(2):39-406.
- Levine, E.A., J.S. Gosnell, E.M. Goetz, **C.R. Malinowski** (2016). Natural cultch type influences habitat preference and predation, but not survival, in reef-associated species. *Restoration Ecology* 25(1): 101-111.
- Malinowski, C.R.**, Herzing, D.L. (2015). Differences in prey and nutrient use between reproductive states and age classes in Atlantic spotted dolphins (*Stenella frontalis*). *Marine Mammal Science* 31(4): 1471-1493.
- Malinowski, C.R.**, A. Schaber, C. Searle, and T. Höök. Potential effects of environmentally-relevant microplastic concentrations on aquatic ecological interactions. (in prep). Target journal: *Environmental Science and Technology*.

AWARDS, RECOGNITION, & FUNDING:

- Project funding through South Florida Water Management District – PI, budget period of 2021-2022 (\$94,000)
- EPA Grant (2021) – PI, grant submitted through OFI (\$349,925) – proposed budget period 1 Jan 2022 – 31 Dec 2024 (not funded)
- Global Photo Associates (GPS USA), Japanese Television Production Company, scholarship (\$5000)- 2017
- PADI Foundation Grant (\$5475)- 2017
- FSU Congress of Graduate Students (COGS) Travel Grant (\$200)- 2017
- FSU Biological Science Travel Award (\$580)- 2017
- FSUCML Scholarship Award (\$4000)- 2014, 2015, 2016, 2017
- Florida State University's William R. Mote Research Assistantship (Summer Term)- 2016, 2017
- Gramling Marine Biology Award (\$4000)- 2016
- Robert B. Short Zoology Scholarship (\$1000)- 2015
- Guy Harvey Scholarship (\$5000)- 2015
- FAU Private Donor Marsh Scholarship (\$500)- 2011
- Society for Marine Mammalogy Student Travel Grant (\$500)- 2011
- Florida Atlantic University Graduate Student Association Travel Grant Award (\$600)- 2011
- Charles E. Schmidt College of Science Travel Grant Award (\$600)- 2011
- Florida Atlantic University Graduate Student Association Travel Grant Award (\$500)- 2010
- Certificate of Accomplishment for undergraduate research project during Research for Undergraduates (REU) program at Great Lakes WATER Institute- 2006

INTERVIEWS, NEWSPAPER, BLOGS, AND TELEVISION:

- **Featured interview in Science Magazine**
 - <https://www.science.org/content/article/overruling-scientists-florida-commission-authorizes-fishing-vulnerable-goliath-grouper>
 - October 13, 2021
- **Featured interview in National Geographic Magazine**
 - [Goliath grouper fishing may be allowed in Florida again after 30-year ban](#)
 - July 30, 2021
- **Featured research on National Geographic Channel**
 - *Monster Fish* [Television series], *Shark Eating Goliath* (Season 6, episode 4, Jan 22, 2016). Documentary about research by myself and colleagues with the Atlantic Goliath Grouper.
- **Featured research on Amazon Prime**
 - *Goliaths in the Stream* (2020). Documentary about the conservation ecology work by myself and colleagues with the Atlantic Goliath Grouper.
- Featured research documentary on Global Photo Associates (GPA USA)
 - Japanese television program documentary on Goliath Grouper (in Japanese) (air date: Nov.22, 2017)

- Featured research documentary on Tokyo Broadcasting systems
 - Japanese television program “Amazing Animals: Doubustu Kisoutengai (in Japanese) (air date: September 21, 2016)
- Online blog post (September 28, 2018) for American Fisheries Society FL Student Chapter
 - [Misperceptions of a giant: impact of the recovering Goliath Grouper on Florida reefs](#)
- Featured research in popular journal: Malinowski, C R. “High on Mercury.” *Underwater Journal*, 12 June 2017.
 - [article link here](#)
- Featured newspaper article
 - Byrne, E. (2015, Dec. 17). Brillion native studying mercury in fish. *The Brillion News*, pp.1-2.
- Online blog post (June 6, 2016) for The FSU Coastal & Marine Laboratory
 - [Goliath Grouper in nearshore mangrove estuaries: researching effects and patterns of mercury toxicity](#)
- Online blog post (Jan. 12, 2015) for Teens4Oceans (non-profit organization)
 - [Mercury Contamination in Atlantic Goliath Grouper-Part 1: Are High Levels Dampening Recovery Potential?](#)
- Interactive online live chat through Explore.org and Teens4Oceans
 - Published Feb.4, 2015: <https://www.youtube.com/watch?v=aZ4YbpC4D8M>

SYNERGISTIC ACTIVITIES:

2018–2019	Committee Member, Biological Sciences Diversity Committee, FSU, FL
2016–2018	FSU Diving Control Board, Graduate Student Representative, FL
2015–2016	Treasurer, Ecology and Evolution Research Discussion Grouper (EERDG), FSU graduate student group, FL
2006	President-Tri-Beta Biological Honors Society, University of Wisconsin-Stevens Point, WI

TEACHING EXPERIENCE:

2019	Purdue University <i>Co-Instructor</i> Sumer Field Practicum (FNR 37100) Emphasis: ecology of freshwater fishes
2018	Florida State University <i>Teaching Assistant</i> Animal Diversity, Lab (ZOO 3141L) (3 credits)
2018, 2019	Florida State University <i>Teaching Assistant</i> Introduction to Environmental Science, Lecture and Laboratory (EVR1001) (3 credits)
2016, 2017	Florida State University <i>Teaching Assistant</i> Environmental and Ecological Physiology (BSC 3402L) (3 credits)
2015, 2017	Florida State University <i>Teaching Assistant</i> General Ecology Lecture (PCB3043-0002) (3 credits)
2012	Florida Atlantic University <i>Adjunct Instructor</i> Anatomy and Physiology 1 Lab (BSC 2085) (1 credit) Anatomy and Physiology 2 Lab (BSC 2086) (1 credit)
2010	Florida Atlantic University <i>Teaching Assistant</i>

- Comparative Vertebrate Morphogenesis (ZOO 4690L) (1 credit)
Anatomy and Physiology 1 Lab (BSC 2085) (1 credit)
- 2008-2011 Florida Atlantic University
Teaching Assistant
Anatomy and Physiology 1 Lab (BSC 2085) (1 credit)
Anatomy and Physiology 2 Lab (BSC 2086) (1 credit)
- 2009-2013 Boca Raton, FL
Private Tutor. Tutored and taught accredited private courses at college, high school, and grade school levels, including: Comparative Vertebrate Morphology, Physics, AP Chemistry, AP Biology, AP Environmental Science, Geometry, Algebra, and various other subjects.

TECHNICAL SKILLS:

- Experienced small boat captain
 - Inland lakes, Great Lakes, Gulf of Mexico, and the Atlantic
 - From nearshore environments (*e.g.*, mangroves) to >95 km offshore
 - Vessels have ranged in size from 16' Carolina Skiff to 26' Calcutta catamaran
- AAUS Scientific Diver certified (over 500 dives logged, both AAUS and non-AAUS)
 - I have been diving for ~15 yrs and have logged dives around the world, from frigid waters of the Great Lakes to murky waters of the northern Gulf of Mexico, and to clear and warm waters of South Atlantic and off Southeast Asia and Australia
 - I often dive to depths of 100-120', often with strong currents and other hazards
- CPR, First Aid Certified, AED, and Oxygen Administration trained and certified
- Tekran 2700 Mercury (Hg) Analysis System—to measure methyl- and inorganic mercury concentrations in tissues and materials
- Multi-collector ICP-MS (ThermoFinnigan Neptune) using a cold vapor generator (CETAC HGX-200) as an introduction system—for measuring Hg isotopes
- R statistical software, ArcGIS, Adobe Photoshop, Adobe Illustrator, and Microsoft Access
- Certified remotely operated vehicle (ROV) operator for FSUCML's Seamor 300T ROV
- Brazilian Jiu-Jitsu (BJJ) gold medalist

SEA EXPERIENCE: (> 500 days at sea)

- Nearshore and offshore, day trips and offshore trips lasting weeks, small vessels to >100' research vessels

PRESENTATIONS:

Conservation presentation to Dolphin Communication Project, 2021.

[Recorded presentation and description link](#)

Conservation presentation to Pura Vida Scuba Dive Club Organization, 2021.

[Presentation description link](#)

Ocean Science presentation to Inspire Early Childhood preschool children (5-yr-olds), 2021.

Undergraduate Marine Biology Class—Guest Lecture, 2021.

Malinowski, C.R. Fish ecology research. Purdue University.

Aquatic Seminar Series, 2019.

Malinowski, C.R. Dissertation research and future directions. Purdue University.

Undergraduate Marine Biology Class—Guest Lecture, 2019.

Malinowski, C.R. Fish ecology research. Purdue University.

International Marine Conservation Congress (IMCC5), June, 2018.

Malinowski, C.R., F. Coleman, C. Koenig. High mercury levels and associated consequences in a critically

endangered species being reconsidered for a U.S. fishery. Florida State University.

Florida Fish and Wildlife Conservation Commission Meeting, April, 2018.

Update the Commission, during the public comment period, on the best available science on Goliath Grouper (*Epinephelus itajara*) relevant to their charge of deciding whether or not to reopen a fishery. My presentation and those of others resulted in a temporary decision not to pursue a limited harvest.

The Florida Chapter of the American Fisheries Society, April, 2018.

***Honorable Mention Student Paper Award**

Malinowski, C.R., F. Coleman, C. Koenig. High mercury levels in the Atlantic Goliath Grouper *Epinephelus itajara*: a critically endangered species being reconsidered for a fishery in the southeastern US. Florida State University.

Florida State University Coastal and Marine Laboratory, Conservation Lecture Series, June, 2017.

Malinowski, C.R., F. Coleman, C. Koenig. Understanding Goliath Grouper: the underlying biology, human impacts, and misconceptions about the largest grouper in the Western Atlantic. Florida State University.

Force-E Scuba Centers-invited speaker, Aug, 2017.

Malinowski, C.R., F. Coleman, C. Koenig. Seeking the scientific truth about Goliath Groupers. Florida State University.

American Fisheries Society (AFS), Aug, 2017.

Malinowski, C.R., F. Coleman, C. Koenig. Mercury in Atlantic Goliath Grouper (*Epinephelus itajara*): sources, bioaccumulation patterns, and potential impacts to population recovery. Florida State University.

American Society of Ichthyologists and Herpetologists, July, 2017.

Malinowski, C.R., F. Coleman, C. Koenig. Mercury in Atlantic Goliath Grouper (*Epinephelus itajara*): sources, bioaccumulation patterns, and potential impacts to population recovery. Florida State University.

Undergraduate Ecology Class-Guest Lecture, 2016, 2017.

Malinowski, C.R. Human impacts on coastal environments. Florida State University.

Ecology and Evolutionary Ethology of Fishes (EEEEF), June, 2016.

Malinowski, C.R., F. Coleman, C. Koenig. Mercury in Atlantic Goliath Grouper (*Epinephelus itajara*): sources, bioaccumulation patterns, and potential impacts to population recovery. Florida State University.

SouthEast Data, Assessment, and Review (SEDAR) 47 Review Workshop, May, 2016.

Malinowski, C.R., F. Coleman, C. Koenig. Mercury contamination in Atlantic Goliath Grouper: are high levels dampening recovery potential?

Conference on the Biology of Marine Mammals, 19th Biennial, Nov, 2011.

Malinowski, C.R., & Herzing Denise L. Nutrition and habitat driven foraging of wild dolphins in the Bahamas: a recipe for prey use. Florida Atlantic University.

Society for Integrative and Comparative Biology (SICB), Jan, 2011.

Malinowski, C.R., Herzing, D.L. Nutrition and habitat-based diet of wild dolphins in the Bahamas as a model for understanding prey selection. Florida Atlantic University.

Mystic Aquarium Seminar Series-invited speaker, Oct, 2010.

Malinowski, C.R., Herzing, D.L. Nutrition and habitat-based diet of wild dolphins in the Bahamas as a model for understanding prey selection: preliminary results. Florida Atlantic University.

MENTORING AND SUPERVISION:

- Undergraduate research mentor, Florida State University and Purdue University 2015-2020
 - I have mentored seven undergraduate students, including one current student
 - Projects include:
 - Meta-analysis on toxicant bioaccumulation and correlation between fishes and their eggs/larvae, and the relationship between toxicant exposure and egg/larvae survival and viability
 - Mercury bioaccumulation in Atlantic Goliath Grouper and their prey
 - Analysis of Atlantic Goliath Grouper size and sex distribution during the spawning season
 - Seasonal and annual patterns of Goliath Grouper abundance and size
 - Mercury toxicity in Atlantic Goliath Grouper tissues and histological methods of identifying and

- quantifying liver abnormalities
- Growth and morphology differences in Yellow Perch exposed to different research pond mesocosm habitats
- Experimental effects of an environmentally relevant microplastic concentration on two zooplankton species
- Oversight of technicians and staff on numerous field and laboratory research projects 2015-2020
- Graduate Teaching Assistant mentorship, Florida Atlantic University 2011, 2012
 - Appointed to mentor new graduate students on how to be proficient and excel in teaching

OUTREACH:

- Saturday-at-the-Sea outreach program, Florida State University 2014-2019
 - Program available for students and teachers from Florida schools to help them learn about coastal ecosystems
- Florida State University Coastal & Marine Lab Biennial Open House, St. Teresa, FL 2013, 2015, 2017
- Hosted a remotely operated vehicle (ROV) station where visitors come to operate an ROV and learn about research capabilities utilizing this tool
- First Annual Deep-C Consortia ROV Competition, Tallahassee, FL 2013
 - Volunteer judge for ROV competition consisting of teams from local high schools
- Sturgeon Bowl Science Competition, Great Lakes WATER Institute, Milwaukee, WI 2007, 2008
- Volunteer organizer for high school science competition
- Marine Biology Summer Camp, Discover World Museum, Milwaukee, WI 2008
- Taught a one-week marine biology summer camp to 8- to 10-year-old children. I designed my own lesson plans, which included: various environmental, conservation, and other marine biology topic lectures and discussions; dissections; self-sustaining ecosystem projects; fish identification project on freshwater and marine fish; plankton sampling; fish seining in nearshore environments; ROV operation; and directed presentations by students concluding this course.