

KERRI LYNN ACKERLY

EDUCATION

- 2017 **Ph.D., Biology**, McGill University, Montreal, Canada.
Dissertation: Physiology, morphology, and performance of weakly electric mormyrid fishes.
- 2013 **M.S., Biology**, Adelphi University, Garden City, NY.
Thesis: Determining the relationship between vertebral morphology, burst swimming performance, and fitness in two model aquatic vertebrates.
- 2011 **B.S., Biology**, *Magna Cum Laude*, Honours College, Adelphi University, Garden City, NY.
Honours Thesis: A Warmer Start: The correlation between vertebral development and C-start efficiency in *Danio rerio*.

PROFESSIONAL APPOINTMENTS

- 2018-Current **Postdoctoral Fellow**, The University of Texas at Austin.
- 2017-2018 **Special Assistant Professor**, Biology Department, Hofstra University.
- 2015- 2017 **Research Associate in Residence**, Hofstra University.

RESEARCH APPOINTMENTS

- 2013-2107 **Graduate Researcher**, Physiological Ecology & Neurobiology Laboratory, McGill University.
Advisors: Dr. Lauren Chapman, Dr. Rüdiger Krahe
- 2009-2013 **Undergraduate & Graduate Researcher**, Functional Morphology Laboratory, Adelphi University.
Advisor: Dr. Andrea Ward
- 2011- 2012 **Research Assistant**, Plant Development & Genetics Laboratory, Cold Spring Harbor Laboratory (CSHL).
- 2010 **Undergraduate Researcher**, NSF Research Experience for Undergraduates (REU), University of Alaska Anchorage. Supervisor: Dr. Frank von Hippel

PEER REVIEWED PUBLICATIONS

- Ackerly KL, Roark K, Nielsen KM. 2022. Short term salinity stress during early development impacts the growth and survival of red drum (*Sciaenops ocellatus*). *Estuaries and Coasts* 41: 1-10.
- Dichiera AM, Negrete B, Ackerly KL, Esbaugh AJ. 2022. The role of carbonic anhydrase-mediated tissue oxygen extraction in a marine teleost acclimated to hypoxia. *Journal of Experimental Biology* 225: jeb244474.
- Negrete B, Ackerly KL, Dichiera AM, Esbaugh AJ. 2022. Respiratory plasticity improves aerobic performance in hypoxia in a marine teleost. *Journal: Science of the Total Environment* 849: 157880.
- Khursigara AJ, Ackerly KL, Esbaugh AJ. 2022. Impacts of individual polycyclic aromatic hydrocarbons (PAHs) on the development and morphology of larval red drum (*Sciaenops ocellatus*). *Comparative Physiology and Biochemistry Part C* 259: 109397.
- Bonatesta F, Khursigara AJ, Ackerly KL, Esbaugh AJ, Mager EM. 2022. Early life-stage Deepwater Horizon crude oil exposure induces latent osmoregulatory defects in larval red drum (*Sciaenops ocellatus*). *Comparative Physiology and Biochemistry Part C*.
- Esbaugh AJ, Ackerly KL, Dichiera AM, Negrete B. 2021. Is hypoxia vulnerability a by-product of maximum metabolic rate? *Journal of Experimental Biology* 224:jeb232520.
- Ackerly KL, Esbaugh, AE. 2021. The effects of temperature on oil-induced respiratory impairment in red drum (*Sciaenops ocellatus*). *Aquatic Toxicology* 233: 105773.
- Ackerly KL, Esbaugh, AE. 2020. The additive effects of oil exposure and hypoxia on aerobic performance in red drum (*Sciaenops ocellatus*). *Science of the Total Environment* 737: 1-9.
- Khursigara AJ, Ackerly KL, Esbaugh AE. 2019. Oil toxicity and implications for environmental tolerance in fish. *Comparative Physiology and Biochemistry Part C* 220: 52-61.
- Ackerly KL, Krahe R, Sanford CP, Chapman LJ. 2018. Effects of hypoxia on swimming and sensing in a weakly electric fish. *Journal of Experimental Biology* 221(14): jeb172130.
- Ackerly KL, Chapman LJ, Krahe R. 2017. Hypoxia acclimation increases novelty response strength during fast-starts in the African mormyrid, *Marcusenius victoriae*. *Comparative Physiology and Biochemistry Part A* 213: 36-45.
- Ackerly KL, Ward AB. 2016. How temperature-induced variation in musculoskeletal anatomy affects escape performance and survival of zebrafish (*Danio rerio*). *Journal of Experimental Zoology Part A* 325(1): 25-40.
- Ackerly KL, Ward AB. 2015. Linking vertebral number to performance of aquatic escape responses in the axolotl (*Ambystoma mexicanum*). *Zoology* 118(6): 394-402.
- Willacker JJ, von Hippel FA, Ackerly KL, O'Hara TM. 2013. Habitat-specific foraging and sex determine mercury concentrations in benthic and limnetic threespine stickleback in Benka Lake, Alaska. *Environmental Toxicology & Chemistry* 32(7): 1623-1630.

MANUSCRIPTS IN PROGRESS

- Ackerly KL**, Negrete B, Dichiera AM, Esbaugh AJ. *In review*. The effects of hypoxia acclimation on mitochondrial performance and efficiency in red drum (*Sciaenops ocellatus*). Journal: *Journal of Experimental Biology*.
- Negrete B, **Ackerly KL**, Esbaugh AJ. *In review*. The impacts of hypoxia acclimation on anaerobic metabolism of red drum (*Sciaenops ocellatus*). Target journal: *Journal of Experimental Biology*.
- Ackerly KL**, Mitrofanov I, Sanford CP, Krahe R, Chapman LJ. *In prep*. A mismatch between body shape and performance in elephant-nose mormyrids. Target journal: *Journal of Morphology*.

TEACHING EXPERIENCE

- 2022 Guest lecture: Scientific Communication: Communicating with Politicians, *Marine Environmental Science*, UT Austin Marine Science Institute.
- 2022 Guest lecture: Toxicants and Climate Change in Marine Systems, *Marine Environmental Science*, UT Austin Marine Science Institute.
- 2021 Instructor of Record, *The Biology of Sharks, Skates, and Rays*, UT Austin Marine Science Institute.
- 2019 Guest lecture: Shark Conservation, *The Biology of Sharks, Skates, and Rays*, UT Austin Marine Science Institute.
- 2018 Instructor of Record, *Biology of Fishes*, Hofstra University.
- 2018 Instructor of Record, *Biology in Society*, Hofstra University.
- 2018 Instructor of Record, *Biology in Society Laboratory*, Hofstra University (x2).
- 2018 Instructor of Record, *Scientific Process Skills*, Hofstra University.
- 2018 Instructor of Record, *Scientific Communication*, Adelphi University.
- 2017 Instructor of Record, *Biology in Society*, Hofstra University.
- 2017 Instructor of Record, *Biology in Society Laboratory*, Hofstra University (x3).
- 2017 Instructor of Record, *Scientific Process Skills*, Hofstra University.
- 2015 Teaching Assistant, *Principles: Organismal Biology Laboratory*, McGill University (x2).
- 2014 Teaching Assistant, *Principles: Organismal Biology Laboratory*, McGill University (x2).
- 2013 Teaching Assistant, *Principles: Organismal Biology Laboratory*, McGill University (x2).
- 2013 Teaching Assistant, *Cell Biology*, Adelphi University.
- 2013 Teaching Assistant, *Biological Concepts & Methods II Laboratory*, Adelphi University (x2).
- 2012 Guest lecture: The Respiratory System, *Comparative Anatomy*, Adelphi University.
- 2012 Teaching Assistant, *Comparative Anatomy Laboratory*, Adelphi University.
- 2012 Teaching Assistant, *Principles of Regulatory Physiology Laboratory*, Adelphi University.
- 2012 Marine Science Educator/Naturalist, The WaterFront Center, Oyster Bay, NY.
- 2012 Teaching Assistant, *Biological Concepts & Methods II Laboratory*, Adelphi University (x3).
- 2009-2012 Biology & Organic Chemistry Tutor.
- 2011 Teaching Assistant, *Vertebrate Zoology Laboratory*, Adelphi University.
- 2011 Teaching Assistant, *Biological Concepts & Methods I Laboratory*, Adelphi University (x2).
- 2011 Guest lectures, *Vertebrate Zoology*, Adelphi University. Topics: Turtle Diversity & Evolution; Mesozoic Diapsids.
- 2011 Teaching Assistant, *Genetics Laboratory*, George Washington Carver High School for the Sciences, Queens, NY.

HONOURS AND AWARDS

- 2021 Outstanding Alumni, Adelphi University 10 Under 10 Alumni Recognition Program, *Adelphi University*.
- 2018 Nominee, Best Student Oral Presentation, *Society of Integrative and Comparative Biology, Division of Vertebrate Morphology*.
- 2013 Honourable Mention, Outstanding Graduate Oral Presentation in Life Sciences. *AURC*.
- 2012 Best Graduate Poster Presentation. Metropolitan Association of College and University Biologists.
- 2012 Honourable Mention, Outstanding Graduate Oral Presentation in Life Sciences. *AURC*.
- 2011 The Joseph Serio Research Award, Biology Department, Adelphi University.
- 2011 The Warren Eickelberg Prize for Natural Sciences, Honours College, Adelphi University.
- 2011 Outstanding Undergraduate Oral Presentation in Life Sciences. *Adelphi University Research Conference (AURC)*.
- 2007-2010 Dean's List, Adelphi University, 7 semesters.

FUNDING & SCHOLARSHIPS

- 2016-2017 Doctoral Writing Year Award (\$8,000), McGill University, Montreal, QC.
- 2016-2017 Differential Fee Waiver (\$11,200), McGill University, Montreal, QC.
- 2016 Research Travel Award (\$2,000), McGill University, Travel support for work at Hofstra University, NY.
- 2016 GREAT Award (\$500), McGill University, Travel to *The Society of Integrative and Comparative*.
- 2016 Molson, Hilton, Hart Fellowship (\$5,400), McGill University, Montreal, QC.
- 2015-2016 Differential Fee Waiver (\$11,200), McGill University, Montreal, QC.
- 2015 Faculty of Science Graduate Excellence Fellowship (\$5,000), McGill University, Montreal, QC.
- 2015 Research Travel Award (\$3,000), McGill University, Travel support for work at Hofstra University, NY.

FUNDING & SCHOLARSHIPS (cont.)

2014-2015	Differential Fee Waiver (\$11,200), McGill University, Montreal, QC.
2014	GREAT Award (\$245), McGill University, Registration for The <i>Genomes to Biomes</i> Meeting, Montreal, QC.
2014	GREAT Award (\$500), McGill University, Travel to <i>The Society of Integrative and Comparative Biology</i> .
2013-2014	Differential Fee Waiver (\$11,200), McGill University, Montreal, QC.
2013-2014	Biology Department Entrance Award (\$5,000), McGill University, Montreal, QC.
2011-2012	Barnes & Noble Scholarship (\$1,000), Adelphi University, Garden City, NY.
2007-2011	Presidential Scholarship, Adelphi University, Garden City, NY.
2007-2011	Long Island Pan-Hellenic Scholarship, Adelphi University, Garden City, NY.
2007-2011	Service Recognition Award, Adelphi University, Garden City, NY.

MENTORING EXPERIENCE

2021-2022	Adam Zambie (co-advised with Benjamin Negrete, Jr.), UT Austin Marine Science Institute.
2019	Annamarie Capra (co-advised with Angelina Dichiera), UT Austin Marine Science Institute. Project: Impacts of temperature acclimation on red drum (<i>Sciaenops ocellatus</i>) metabolic performance.
2016-2017	Francesca Giammona, Hofstra University. Project: Comparative feeding kinematics among elephantnose weakly electric fishes.
2015-2017	Leah Andren, Hofstra University. Project: Feeding kinematics of blackghost knifefish, <i>Apteronotus albifrons</i> .
2015	Arthega Selvarajan & Catherine Jarvis, Sacred Heart High School of Montreal. Project: Morphological comparisons of brown ghost knifefish, <i>Apteronotus leptorhynchus</i> .
2014-2015	Charlotte Le Fèvre, McGill University. Project: Vertebral morphological comparisons among Mormyridae and Gymnotiformes.
2014	Nathan Philip, McGill University. Project: Fast-start performance under high and low oxygen in <i>Gnathonemus victoriae</i> .
2014	Katrina Li, McGill University. Project: Effects of hypoxia acclimation on ventilation of <i>Gnathonemus victoriae</i> .
2014	Brittany Zhang, McGill University. Project: Fast-start performance under high and low oxygen in <i>Gnathonemus victoriae</i> .

INVITED SEMINARS

August 2022	The impacts of climate change and crude oil on red drum (<i>Sciaenops ocellatus</i>). The University of Texas at Austin, Austin, TX.
September 2021	Impacts of environmental conditions and toxicants on aerobic performance of red drum (<i>Sciaenops ocellatus</i>). University of Alberta, Canada.
November 2019	Impacts of oil exposure, low oxygen, and temperature on aerobic performance of red drum (<i>Sciaenops ocellatus</i>). The University of Texas at Austin Marine Science Institute, Port Aransas, TX.
October 2018	Mismatch between morphology and performance among elephant-nose weakly electric fishes from divergent habitats. The University of Texas at Austin Marine Science Institute, Port Aransas, TX.
February 2018	Mismatch between morphology and performance among elephant-nose weakly electric fishes from divergent habitats. SUNY New Paltz, New Paltz, NY.
December 2016	The effects of chronic and acute hypoxia on swimming and active sensing in weakly electric fishes. McGill University, Montreal, QC.
September 2016	Effects of hypoxia on swimming and active sensing in weakly electric fishes. Hofstra University, Hempstead, NY.
April 2016	The relationship between swimming performance and electrical signaling activity in weakly electric fishes under hypoxia. Adelphi University, Garden City, NY.
March 2015	Effects of hypoxia on swimming and active sensing in weakly electric fishes. Adelphi University, Garden City, NY.
July 2013	The importance of backbones in a fish eat fish world. Walter G. O'Connell Copiague High School, Copiague, NY.
January 2013	Determining the relationship between vertebral morphology and burst swimming performance. Adelphi University, Garden City, NY.

RESEARCH PRESENTATIONS (Presenting author)

- Ackerly KL, Roark KJ, Esbaugh AJ, Nielsen KM. 2022. Oral Presentation. *North American Society of Environmental Toxicology and Chemistry Annual Meeting*. Pittsburgh, Pennsylvania.
- Ackerly KL, Esbaugh AE. 2022. Oral Presentation. *The American Physiological Society Conference*, San Diego, CA.
- Negrete B, Ackerly KL, Esbaugh AE. 2022. Oral Presentation. *The American Physiological Society Conference*, San Diego, CA.
- Ackerly KL, Roark KJ, Esbaugh AJ, Nielsen KM. 2022. Oral Presentation. *Texas Bays and Estuaries Meeting*. Port Aransas, TX.
- Ackerly KL, Roark KJ, Esbaugh AJ, Nielsen KM. 2022. Poster Presentation. *The University of Texas Center for Molecular Carcinogenesis and Toxicology 4th Annual Research Symposium*. Austin, TX.
- Ackerly KL, Negrete BNJ, Dichiera AM, Esbaugh AJ. 2022. Oral Presentation. *International Congress on the Biology of Fish Meeting*. Montpellier, France.
- Ackerly KL, Nielsen KM, DeCamp L, Birgisson M, McMaster M, Parrott J, Palace V, Kidd K, Ussery E. 2022. Oral Presentation. *International Congress on the Biology of Fish Meeting*. Montpellier, France.
- Ackerly KL, Roark KJ, Esbaugh AJ, Nielsen KM. 2022. Poster Presentation. *International Congress on the Biology of Fish Meeting*. Montpellier, France.
- Roark KJ, Ackerly KL, Nielsen KM. 2022. Oral Presentation. *International Congress on the Biology of Fish Meeting*. Montpellier, France.
- Negrete BNJ, Ackerly KL, Esbaugh AJ. 2022. Oral Presentation. *International Congress on the Biology of Fish Meeting*. Montpellier, France.
- Zambie A, Negrete BNJ, Ackerly KL, Esbaugh AJ. 2022. Oral Presentation. *International Congress on the Biology of Fish Meeting*. Montpellier, France.
- Dichiera AM, Negrete BNJ, Ackerly KL, Esbaugh AJ. 2022. Oral Presentation. *International Congress on the Biology of Fish Meeting*. Montpellier, France.
- Ackerly KL, Roark KJ, Esbaugh E, Nielsen KM. 2022. Oral Presentation. *South-Central SETAC Regional Chapter Annual Meeting*. Corpus Christi, TX.
- Ackerly KL, Esbaugh AE. 2020. Poster Presentation. *Executive Committee of the Gulf of Mexico Oil Spill and Ecosystem Science Conference*, Tampa, FL.
- Ackerly KL, Esbaugh AE. 2020. Oral Presentation. *The Society of Integrative and Comparative Biology Annual Conference*, Austin, TX.
- Ackerly KL, Esbaugh AE. 2020. Poster Presentation. *The Society of Integrative and Comparative Biology Annual Conference*, Austin, TX.
- Ackerly KL, Esbaugh AE. 2019. Oral Presentation. *International Conference of Comparative Physiology and Biochemistry*. Ottawa, Canada.
- Ackerly KL, Esbaugh AE. 2019. Oral Presentation. *The Society of Experimental Biology Conference*, Seville, Spain.
- Ackerly KL, Esbaugh AE. 2019. Oral Presentation. *Executive Committee of the Gulf of Mexico Oil Spill and Ecosystem Science Conference*, New Orleans, LA.
- Ackerly KL, Esbaugh AE. 2019. Poster Presentation. *Executive Committee of the Gulf of Mexico Oil Spill and Ecosystem Science Conference*, New Orleans, LA.
- Ackerly KL, Mitrofanov I, Sanford CP, Krahe R, Chapman LJ. 2018. Oral Presentation, *The Society of Integrative and Comparative Biology Annual Conference*, San Francisco, CA.
- Ackerly KL, Chapman LJ, Krahe R. 2017. Poster presentation, *The Society of Integrative and Comparative Biology Annual Conference*, New Orleans, LA.
- Ackerly KL, Mitrofanov I, Sanford CP, Krahe R, Chapman LJ. 2017. Poster presentation, *The Society of Integrative and Comparative Biology Annual Conference*, New Orleans, LA.
- Ackerly KL, Chapman LJ, Krahe R. 2016. Oral presentation, *Northeast Regional Vertebrate Evolution Symposium (NERVES)*, Garden City, NY.
- Ackerly KL, Krahe R, Chapman LJ. 2016. Oral presentation, *The Society of Integrative and Comparative Biology Annual Conference*, Portland, OR.
- Ackerly KL, Chapman LJ, Krahe R. 2016. Poster presentation, *The Society of Integrative and Comparative Biology Annual Conference*, Portland, OR.
- Ackerly KL, Chapman LJ, Krahe R. 2015. Poster presentation, *Concordia University Biology Department Symposium*, Montreal, QC.
- Ackerly KL, Reemeyer JE, Chapman LJ, Krahe R. 2015. Poster presentation, *McGill University Biology Department Symposium*, Montreal, QC.
- Ackerly KL, Chapman LJ, Krahe R. 2015. Oral presentation, *The Electric Fish Conference*, Mont-Saint-Hilaire, QC.
- Ackerly KL, Baltazer C, Chretien E, Fugere V, Hanna D, McDonnell L, Moulton T, Nyboer B, Chapman LJ. 2014. Poster presentation, *McGill University Biology Department Symposium*, Montreal, Quebec.
- Ackerly KL, Krahe R, Chapman, LJ. 2014. Poster presentation, *Genomes to Biomes Meeting*, Montreal, QC.
- Ackerly KL, Ward AB. 2014. Oral presentation, *The Society of Integrative and Comparative Biology Annual Conference*, Austin, TX.
- Ward AB, Ackerly KL. 2013. Oral presentation, *International Congress of Vertebrate Morphology meeting*, Barcelona, Spain.
- Ackerly KL, Ward AB. 2013. Oral presentation, *Adelphi University Research Conference*, Garden City, NY.
- Ackerly KL, Ward AB. 2013. Oral presentation, *The Society of Integrative and Comparative Biology Conference*, San Francisco, CA.

RESEARCH PRESENTATIONS (Presenting author) (cont.)

Ackerly KL, Ward AB. 2012. Poster presentation, *Metropolitan Association of College and University Biologists (MACUB) Annual Conference*, Adelphi University, Garden City, NY.

Ackerly KL, Ward AB. 2012. Oral presentation, *Adelphi University Research Conference*, Garden City, NY.

Ackerly KL, Ward AB. 2012. Oral presentation, *Northeast Area Vertebrate Morphology & Evolution Conference*, NY College of Osteopathic Medicine, Old Westbury, NY.

Ackerly KL, Ward AB. 2012. Poster presentation, *The Society of Integrative and Comparative Biology Annual Conference*, Charleston, SC.

Ackerly KL, Ward AB. 2011. Oral presentation, *Adelphi University Research Conference*, Garden City, NY.

Ackerly KL, Ward AB. 2011. Poster presentation, *The Society of Integrative & Comparative Biology Annual Conference*, Salt Lake City, UT.

Ackerly KL, Willacker JJ, von Hippel FA. 2010. Oral presentation, *University of Alaska Anchorage REU Research Seminar*, Anchorage, AK.

Ackerly KL, Willacker JJ, von Hippel FA. 2010. Poster presentation, *University of Alaska Anchorage REU Research Seminar*, Anchorage, AK.

Ackerly KL, Ward AB. 2010. Poster presentation, *Adelphi University Research Conference*. Garden City, NY.

SOCIETY MEMBERSHIPS

2019-Present	The Society of Experimental Biology (SEB).
2011-Present	Society for Integrative and Comparative Biology (SICB).
2014-2017	Canadian Society for Ecology and Evolution (CSEE).
2013-2017	Quebec Centre for Biodiversity Science (QCBS).
2012	Metropolitan Association of College and University Biologists (MACUB).
2009-2011	Beta Beta Beta, National Biological Honour Society, Adelphi University.

PEER REVIEWER

Evolution, Molecular Ecology, Scientific Reports, Journal of Experimental Marine Biology and Ecology, Journal of Fish Biology, Marine Policy, PLoS ONE, Environmental Biology of Fishes, Aquatic Toxicology, Integrative and Comparative Biology.

SCIENTIFIC OUTREACH & WORKSHOPS

2019	Shark Biology & Conservation Workshop, Summer Science Program, UT Austin Marine Science Institute, Port Aransas, TX.
2018-Present	"Skype A Scientist" Biologist, 5 schools/semester.
2018	Science Panelist, 5 th Grade Olsen Elementary School Science Fair, Port Aransas, TX.
2017-2020	Communications Director & International Press Team Leader, The Nakawe Project (@nakaweproject).
2016-2019	Judge, Long Island Science & Engineering Fair, Woodbury, NY.
2015-2016	Mentor, Gifted and Talented Education (GATE) Program, Sacred Heart High School, Montreal, QC.
2012-2020	K-12 Life Science "Expert", ScienceBuddies.
2014	Electrophysiology Session Leader, Panorama of the Sciences Camp, Montreal, QC.
2012	VertNet: The Biodiversity Informatics Training Workshop, University of Colorado Museum of Natural History.