

RENE P. MARTIN

American Museum of Natural History • 200 Central Park West • New York, NY 10024 •
rmartin@amnh.org • www.lampichthys.com • ORCID: 0000-0003-0153-7160

EDUCATION

- Ph.D.** Ecology and Evolutionary Biology – December 2022
University of Kansas, Lawrence, KS
- Master of Science** Biological Sciences – May 2017
St. Cloud State University, St. Cloud, MN
- Bachelor of Science** Ecology and Field Biology – December 2014
Concentration: Ecology and Natural Resources
St. Cloud State University, St. Cloud, MN
- Associate of Arts** Liberal Arts and Sciences – May 2012
Century College, White Bear Lake, MN

PROFESSIONAL EXPERIENCE

Academic —

- 2023** **Postdoctoral Researcher (Gerstner Scholar)** — Research on the morphology and evolution of light organs in lanternfishes, tubeshoulders, and ponyfishes. American Museum of Natural History, New York, New York. Supervisor: John Sparks.
- 2022** **Research Assistant (Ornithology)** — Cutting, digesting, and extracting of DNA from Cryogenically-stored tissues in the University of Kansas Natural History Museum and Biodiversity Institute Ornithology Collection. Work also included library preparation of samples for whole genome Illumina sequencing. University of Kansas, Lawrence, Kansas. Supervisor: Robert Moyle
- 2021** **Curatorial Assistant (Ichthyology)** — Curating the tissue collection, identifying and imaging of wet collection specimens, databasing, leading tours of the collections, assessing of lid integrity and alcohol level in the University of Kansas Natural History Museum and Biodiversity Institute Ichthyology Collection. University of Kansas, Lawrence, Kansas. Supervisors: Wm. Leo Smith, Andy Bentley
- 2020–2021** **Curatorial/Research Assistant (Invertebrate Paleontology)** — Digitizing of trilobite specimens for the University of Kansas Natural History Museum and Biodiversity Institute Invertebrate Paleontology Collection. Work also included analyzing trilobites using geometric morphometrics. University of Kansas, Lawrence, Kansas. Supervisors: Bruce Lieberman, Natalia Lopez Carranza
- 2017–2018** **University Graduate Fellowship** — Studying the macroevolution of lanternfishes using geometric morphometrics and phylogenetic comparative methods. University of Kansas, Lawrence, Kansas.
- 2015–2017** **Research Assistant** — Studying the evolution of deep-sea fishes for NSF deep-sea grant (DEB 1258141, 1543654). St. Cloud State University, St. Cloud, Minnesota. Supervisor: Matt Davis
- 2013–2014** **Undergraduate Researcher** — Studying the mate-choice copying reproductive behaviors of wild-caught and aquarium-bred Sailfin mollies. St. Cloud State University, St. Cloud, Minnesota. Supervisor: Shelly Elfelt
- State —**
- 2019** **Fisheries Assistant (Kansas Department of Wildlife, Parks, and Tourism: Fisheries Division)** — Electrofishing, juglining, seining, trapnetting, lake stocking, fish weighing, measuring, and macrophyte surveying. Work also included fish feeder and

boat trailer maintenance, and public education. Perry Lake, Kansas. Supervisor: Nick Kramer

- 2014 **Fisheries Management Intern (Minnesota Department of Natural Resources: Fisheries Division)** — Electrofishing, gillnetting, seining, trapnetting, fish weighing, measuring, and removing of otolith and scales. Work also included species identification, database entry, report writing, and trailer and net maintenance. Glenwood, Minnesota. Supervisor: Jerry Wendlandt
- 2007 **Watercraft Inspector Intern (Department of Natural Resources)** — Inspecting of watercraft for invasive species at multiple public lake access points. St. Paul, Minnesota.
- Other —
- 2015–2017 **Freshwater Fish Research Scientist (Xcel Energy)** — Identifying larval and juvenile fishes of the Mississippi River in Minnesota aiding in ecosystem impact assessments of water intake from coal plants. St. Cloud, Minnesota. Supervisor: Matt Davis

TEACHING EXPERIENCE

Instructor —

- 2023 **Histological Techniques: Platyroctidae structures**, Histological methods, from embedding to sectioning to staining and analysis. Sumer course, Richard Gilder Graduate School, American Museum of Natural History, New York, New York.
- 2020 **Evolutionary Biology**, Upward Bound UNITE, six week summer course, University of Kansas, Lawrence, Kansas.

Invited Lecturer —

- 2021 **‘Evolution in the Deep Sea’** for **Evolutionary Biology (BIO 385)**, Gustavus Adolphus College, St. Peter, Minnesota, December 3rd, Instructor: Katie Peterson. Virtual
- ‘My Dive into Deep-sea Research’** for **Marine Ichthyology (BIOL 396)**, Millersville University, Millersville, Pennsylvania, July 13th, Instructor: Isaac Ligocki. Virtual
- 2020 **‘Fisheries Sampling Techniques’** for **Limnology (ESCI 230)**, Peru State College, Peru, Nebraska, October 15th, Instructor: Lucas Klicka. Virtual
- ‘Importance of Museum Collections’** for **Museums (NDL 107)**, Gustavus College, St. Peter, Minnesota, January 21st, Instructor: Katie Peterson. Virtual
- 2019 **‘Beyond and R’** for **An Introduction to R Programming (BIOL 701)**, University of Kansas, Lawrence, Kansas, November 14th, Instructor: Jamie Walters
- 2018 **‘Crash Course in Adobe Illustrator’** for **STEM Professional Development (BIOL 420)**, University of Kansas, Lawrence, Kansas, November 10th, Instructor: Karen Olson
- ‘Coastal Fishes’** for **Oceanography (GEOL 302)**, University of Kansas, Lawrence, Kansas, October 9th, Instructor: Eugene Rankey

Teaching Assistant —

- 2022 **Principles of Biology (BIOL 100)**, Department of Biology, University of Kansas, Lawrence, Kansas. Supervisors: Trevor Rivers, Kris Holder
- Ichthyology (BIOL 592)**, Department of Biology, University of Kansas, Lawrence, Kansas. Supervisor: Wm. Leo Smith
- Principles of Biology Lab (BIOL 102)**, Department of Biology, University of Kansas, Lawrence, Kansas. Supervisor: Laura Rozzi
- 2020 **Principles of Biology (BIOL 100)**, Department of Biology, University of Kansas, Lawrence, Kansas. Supervisors: Trevor Rivers, Tara Marriage
- 2019 **Introduction to Systematics (BIOL 428)**, Department of Biology, University of Kansas, Lawrence, Kansas. Supervisors: Kirsten Jensen, Michael Engel

- Principles of Biology (BIOL 100)**, Department of Biology, University of Kansas, Lawrence, Kansas. Supervisors: Trevor Rivers, Tara Marriage, Kris Holder
- 2018 Principles of Biology (BIOL 100)**, Department of Biology, University of Kansas, Lawrence, Kansas. Supervisors: Kris Holder, Tara Marriage
- 2015–2016 Organismal Diversity (BIOL 152)**, Department of Biology, St. Cloud State University, St. Cloud, Minnesota. Supervisors: Neal Voelz, Jorge Arriagada
- Ornithology (BIOL 324)**, Department of Biology, St. Cloud State University, St. Cloud, Minnesota. Supervisor: Marco Restani
- 2013–2014 Zoology (BIOL 308)**, Department of Biology, St. Cloud State University, St. Cloud, Minnesota. Supervisor: Anthony Marcattilio

AWARDS, GRANTS, AND SCHOLARSHIPS

Awards and Funds (total: \$22,787) —

- 2021 Deep-sea Biology Symposium Online Travel Award (\$200)**, Deep-Sea Biology Society
- CLAS Graduate Scholarly Development Fund (\$500)**, ‘Olfactory Organ Anatomy across Deep-sea Lanternfishes,’ University of Kansas
- 2020 Cashner Award (\$1,000)**, ‘A Woman in STEM,’ American Society of Ichthyologists and Herpetologists
- Summer Research Award (\$3,500)**, ‘Olfaction in Deep-sea Lanternfishes (Myctophidae),’ University of Kansas, Biodiversity Institute, and Department of Ecology and Evolutionary Biology
- Vice Provost’s Graduate Retention Fund (\$500)**, University of Kansas
- Doctoral Student Research Fund (\$1,500)**, ‘The Historical Presence of Microplastics in Lanternfishes,’ University of Kansas, Graduate Studies
- 2019 Summer Research Award (\$2,000)**, ‘The Historical Presence of Microplastics in Lanternfishes,’ University of Kansas, Department of Ecology and Evolutionary Biology
- 2018 Student Collections Study Award (\$1,250)**, ‘An In-Depth Look at Diets of Lanternfishes (Myctophidae): One of the World’s Most Abundant Fish Groups,’ Natural History Museum of Los Angeles County
- Graduate Scholarly Presentation Travel Fund (\$500)**, ‘Variations in Bone Density within Deep-Sea Grenadiers (Macrouridae),’ University of Kansas, Graduate Studies
- Friday Harbor Laboratories Financial Aid (\$1,400)**, University of Washington
- Summer Research Award (\$3,000)**, ‘The Role of Phylogeny in the Evolution of Body Shape of Lanternfishes (Myctophiformes),’ University of Kansas, Department of Ecology and Evolutionary Biology
- KU Women 4 KU Women (\$500)**, ‘Variations in Bone Density within Deep-Sea Grenadiers (Macrouridae),’ University of Kansas, The Emily Taylor Center for Women and Gender Equity
- 2017 The Society of Systematic Biologists Graduate Student Research Award (\$1,300)**, ‘Phylogenomics of Lanternfishes (Teleostei: Myctophiformes) and the Evolution of Sexually Dimorphic Light Organs,’ The Society of Systematic Biologists
- Student Research Fund (\$986)**, ‘Relationships of Lanternfishes: A Phylogenomic Approach Using Ultraconserved Elements (UCEs),’ St. Cloud State University, Graduate Studies
- 2016 Student Research Fund (\$726)**, ‘Evolution of Variation in Dentition in Deep-sea Lanternfishes (Teleostei: Myctophiformes),’ St. Cloud State University, Graduate Studies
- Jerry Wolff Biology Graduate Student Enrichment Fund (\$650)**, St. Cloud State University
- George W. Friedrich Wildlife Protection Fund (\$1,000)**, St. Cloud State University

- 2015 **Jerry Wolff Biology Graduate Student Enrichment Fund (\$1,800)**, ‘Evolution of Jaw Shape and Length Variation in Deep-sea Lanternfishes (Teleostei: Myctophiformes),’ St. Cloud State University
Student Research Fund (\$675), ‘Evolution of Variation in Jaw Shape and Length in Deep-sea Lanternfishes,’ St. Cloud State University, Graduate Studies
- Grants (total: \$11,496) —**
- 2022 **Panorama Grant (\$1,000)**, ‘Olfactory Organ Anatomy and Evolution across Deep-sea Lanternfishes,’ University of Kansas, Biodiversity Institute
Open Access Grant (\$1,355), ‘Bone Density Variation in Rattails (Macrouridae, Gadiformes): Buoyancy, Depth, Body Size, and Feeding,’ University of Kansas, Libraries
- 2021 **Lerner-Gray Marine Research Grant (\$2,841)**, ‘Olfaction in Deep-sea Lanternfishes (Myctophidae),’ American Museum of Natural History, Richard Gilder Graduate School
- 2020 **Panorama Grant (\$1,000)**, ‘Understanding the Prevalence of Plastic Ingestion in Coastal California Lanternfishes (Myctophidae),’ University of Kansas, Biodiversity Institute
- 2019 **AMNH Collection Study Grant (\$900)**, ‘The Role of Phylogeny in the Evolution of Body Shape of Lanternfishes (Myctophidae),’ American Museum of Natural History, Richard Gilder Graduate School
- 2016 **Edward C. Raney Grant (\$800)**, ‘Evolution of Variation in Dentition in Deep-sea Lanternfishes (Teleostei: Myctophiformes),’ American Society of Ichthyologists and Herpetologists
- 2015 **Lerner-Gray Marine Research Grant (\$2,500)**, ‘Evolution of Variation in Jaw Shape and Length in Deep-sea Fishes,’ American Museum of Natural History, Richard Gilder Graduate School
Society of Systematic Biologists Workshop Travel Grant (\$500), The Society of Systematic Biologists
Joint Meeting of Ichthyologists and Herpetologists Travel Grant (\$600), American Society of Ichthyologists and Herpetologists
- Scholarships and Fellowships (total: \$182,549) —**
- 2023 **Gerstner Scholar Postdoctoral Research Fellowship (\$148,028)**, ‘Blinded by the Light: A Phylogenetic and Morphological Study of Light Organs in Lanternfishes,’ American Museum of Natural History, Richard Gilder Graduate School
- 2019 **Summer Travel Scholarship (\$250)**, ‘Assessment of Bone Density Reduction within Deep-Sea Grenadiers (Macrouridae),’ University of Kansas, Ecology and Evolutionary Biology Graduate Student Organization
- 2017 **University Graduate Fellowship (\$28,621)**, University of Kansas, Graduate Studies
Ida Hyde Scholarship (\$2,000), ‘Friday Harbor Fish Biomechanics Course,’ University of Kansas, Department of Undergraduate Biology
- 2016 **Charles Rehwaldt Endowment for the Biological Sciences (\$300)**, St. Cloud State University
- 2014 **Harold & Gladys Hopkins Endowed Scholarship (\$1,000)**, St. Cloud State University
Al Grewe Memorial Scholarship (\$750), St. Cloud State University
St. Cloud State Scholarship (\$600), St. Cloud State University
- 2013 **Harold & Gladys Hopkins Endowed Scholarship (\$1,000)**, St. Cloud State University

PUBLICATIONS

Peer Reviewed —

- 2023 **Martin, R. P.**, Lopez Carranza, N., LaVine, R. J., & Lieberman, B. S. (2023). Morphological evolution during the last hurrah of the trilobites: Morphometric analysis of the

Devonian asteropyginiid trilobites. *Paleobiology*, 49, 296–312. “[Link to download paper](#)”

- 2022** **Martin, R. P.**, Dias, A., Summers, A. P., & Gerrerger, M. E. (2022). Bone density variation in rattails (Macrouridae, Gadiformes): Buoyancy, Depth, Body Size, and Feeding. *Integrative and Organismal Biology*, 4, obac044. “[Link to download paper](#)”
- Smith, W. L., Ghedotti, M. J., Domínguez-Domínguez, O., McMahan, C. D., Espinoza, E., **Martin, R. P.**, Girard, M. G., & Davis, M. P. (2022). Investigations into the ancestry of the Grape-eye Seabass (*Hemilutjanus macrophthalmos*) reveal novel limits and relationships for the Acropomatiformes (Teleostei: Percomorpha). *Neotropical Ichthyology*, 20, 03. “[Link to download paper](#)”
- Martin, R. P.**, Davis, M. P., & Smith, W. L. (2022). The impact of evolutionary trade-offs among bioluminescent organs and body shape in the deep sea: A case study on lanternfishes. *Deep-sea Research Part I: Oceanographic Research*, 184, 103769. “[Link to download paper](#)”
- Girard, M. G., Davis, M. P., Baldwin, C. C., **Martin, R. P.**, & Smith, W. L. (2022). Molecular phylogeny of the threadfin fishes (Polynemidae) using ultraconserved elements. *Journal of Fish Biology*, 100, 793–810. “[Link to download paper](#)”
- 2020** Maile, A. J., May, Z. A., DeArmon, E. S., **Martin, R. P.**, & Davis, M. P. (2020). Marine habitat transitions and body-shape evolution in lizardfishes and their allies (Aulopiformes). *Copeia*, 108, 820–832. **2020 Best Student Paper in Ichthyology, American Society of Ichthyology and Herpetology.** “[Link to download paper](#)”
- Martin, R. P.**, & Davis, M. P. (2020). The evolution of specialized dentition in the deep-sea lanternfishes (Myctophiformes). *Journal of Morphology*. 281, 536–555. “[Link to download paper](#)”
- 2018** **Martin, R. P.**, Olson, E. E., Girard, M. G., Smith, W. L., & Davis, M. P. (2018) Light in the darkness: New perspective on lanternfish relationships and classification using genomic and morphological data. *Molecular Phylogenetics and Evolution*, 121, 71–85. “[Link to download paper](#)”
- Smith, W. L., Buck, C. A., Ornaty, G. S., Davis, M. P., **Martin, R. P.**, Gibson, S. Z., & Girard, M. G. (2018) Improving vertebrate skeleton images: Fluorescence and the non-permanent mounting of cleared-and-stained specimens. *Copeia*. 106, 427–435. “[Link to download paper](#)”
- 2016** **Martin, R. P.** & Davis, M. P. (2016) Patterns of phenotypic variation in the mouth size of lanternfishes (Teleostei: Myctophiformes). *Copeia*. 104, 795–807. “[Link to download paper](#)”

Scientific Illustrations Featured —

- Jeffries, D. L., Mee, J. A., & Peichel, C. L. (2022). Identification of a candidate sex determination gene in *Culaea inconstans* suggests convergent recruitment of an *Amb* duplicate in two lineages of stickleback. *Journal of Evolutionary Biology*. 00, 1–13.
- Burress, E. D., Piálek, L., Casciotta, J., Almirón, A., & Říčan, O. (2022). Rapid Parallel Morphological and Mechanical Diversification of South American Pike Cichlids (Crenicichla). *Systematic Biology*. syac018.

PRESENTATIONS

Conferences —

- 2023** **Martin, R.P.** Investigation of the Anatomy and Morphology of Bioluminescent Light Organs. Joint Meeting of Ichthyologists and Herpetologists, Norfolk, Virginia, July 2023. Oral Presentation.
- Carr, E., **Martin, R.P.**, Thurman, M., Cohen, K., Sparks, J. Illuminating the Past: Repeated Evolution of Biofluorescence in Teleosts. Joint Meeting of Ichthyologists and Herpetologists, Norfolk, Virginia, July 2023. Poster Presentation.
- 2022** **Martin, R.P.** Olfactory Organ Anatomy Across Deep-sea Lanternfishes. Joint Meeting of Ichthyologists and Herpetologists, Spokane, Washington, July 2022. Oral.

Presentation. **Stoye Award for Best Student Presentation in Genetics, Development, and Morphology, American Society of Ichthyology and Herpetology.**

- Martin, R.P.** Olfactory Organ Anatomy Across Deep-sea Lanternfishes. Annual Meeting for The Society for Integrative & Comparative Biology, Phoenix, Arizona, January 2022. Oral Presentation. **Session Chair.**
- 2021** **Martin, R.P.** A Dive into Deep-sea Fish Diversity and the Growing Work of Early Career Scientists. Joint Meeting of Ichthyologists and Herpetologists, Phoenix, Arizona, July 2021 (Hybrid Meeting). Oral Presentation. Virtual. **Invited Symposia Speaker.**
- 2019** **Martin, R.P.** The Role of Phylogeny in the Evolution of Body Shape of Lanternfishes (Myctophiformes). 3 Minute Thesis, University of Kansas, Lawrence, Kansas, November 2019. Oral Presentation, **Finalist.**
- Martin, R.P.,** Dias, A., Summers, A., & Gerringer, M. Assessment of Bone Density Reduction within Deep-Sea Grenadiers (Macrouridae). Joint Meeting of Ichthyologists and Herpetologists, Snowbird, Utah, July 2019. Oral Presentation.
- Martin, R.P.,** Dias, A., Summers, A., & Gerringer, M. Variations in Bone Density within Deep-Sea Grenadiers (Macrouridae). Annual Meeting for The Society for Integrative & Comparative Biology, Tampa, Florida, January 2019. Oral Presentation.
- 2018** **Martin, R.P.** The Role of Phylogeny in the Evolution of Body Shape of Lanternfishes (Myctophiformes). Joint Meeting of Ichthyologists and Herpetologists, Rochester, New York, July 2018. Oral Presentation.
- 2017** **Martin, R.P.** & Davis, M.P. Repeated Evolution of Heterodonty in Lanternfishes (Teleostei: Myctophiformes). Joint Meeting of Ichthyologists and Herpetologists, Austin, Texas, July 2017. Poster Presentation.
- Smith, W.L., Buck, C., Gibson, S., Davis, M.P., **Martin, R.P.,** Girard, M. Techniques for the Improved Visualization of Vertebrate Anatomy. Joint Meeting of Ichthyologists and Herpetologists, Austin, Texas, July 2017. Poster Presentation.
- Martin, R.P.** Relationships of Lanternfishes: A Phylogenomic Approach Using Ultraconserved Elements. Student Research Colloquium, St. Cloud State University, St. Cloud, Minnesota, April 2017. Oral Presentation.
- 2016** **Martin, R.P.** Morphological Variance in the Dentition on the Oral Jaws in Lanternfishes (Teleostei: Myctophiformes). Joint Meeting of Ichthyologists and Herpetologists, New Orleans, Louisiana, July 2016. Oral Presentation
- Martin, R.P.** Evolution of Jaw Length and Dentition Variation in Deep-sea Lanternfishes (Teleostei: Myctophiformes). Student Research Colloquium, St. Cloud State University, St. Cloud, Minnesota, April 2016. Oral Presentation
- 2015** **Martin, R.P.** & Davis, M.P. Evolution of Jaw Shape and Length Variation in Deep-sea Lanternfishes (Teleostei: Myctophiformes). Joint Meeting of Ichthyologists and Herpetologists, Reno, Nevada, July 2015. Poster Presentation. **Storer Award for Best Student Poster in Ichthyology, American Society of Ichthyology and Herpetology.**
- Martin, R.P.** & Davis, M.P. Evolution of Jaws and Ecological Niche Specialization in Deep-sea Lanternfishes. Student Research Colloquium, St. Cloud State University, St. Cloud, Minnesota, April 2015. Poster Presentation.
- Invited —**
- 2023** **Martin, R.P.** A Deep -dive into the Evolution of Lanternfishes, Lerner Gray Committee Meeting, American Museum of Natural History, New York, New York, May 2023.
- 2022** **Martin, R.P.** Lanternfishes and Adaptation to Depth, Evolution, Ecology, and Behavior Colloquium, University of Illinois, Illinois, September, 2022. Virtual.
- 2020** **Martin, R.P.** Evolution of Lanternfishes, Wainwright Lab Seminar Series, University of California, Davis, California, August 2020. Virtual.

- 2019 **Martin, R.P.** The Role of Phylogeny in the Evolution of Body Shape of Lanternfishes (Myctophiformes). Ecology and Evolutionary Biology Seminar Series, University of Kansas, Lawrence, Kansas, August 2019.
- 2018 **Martin, R.P.** My Dive into Deep-Sea Research. STEM Fellows Seminar, St. Benedictine College, Atchinson, Kansas, November 2018.
- Martin, R.P.** Bioluminescence in the sea. Red Hot Graduate Research Seminar, University of Kansas, Lawrence, Kansas, November 2018.
- 2016 **Martin, R.P.** Evolution of Jaw Length and Evidence of Niche Differentiation in Lanternfishes (Teleostei: Myctophiformes). Biology Seminar Series, St. Cloud State University, St. Cloud, Minnesota, January 2016.

FIELDWORK AND COLLECTION VISITS

- 2022 **Aetna, Kansas Resurvey** — Participated in a week-long collecting event in Aetna Kansas aimed at resurveying the fauna (e.g., amphibians, birds, mammals) in the area in an attempt to assess change in biodiversity through time using KU's Natural History Museum collections. Aetna, Kansas.
- 2021 **American Museum of Natural History** — Visited the collections to survey olfactory organs of lanternfishes and take images of rare species for use in body shape and light organ analyses. New York, New York.
- 2019 **Natural History Museum of Los Angeles County** — Visited collections to dissect myctophid stomachs for research on microplastics and diet. Los Angeles, California.
- 2016 **Deep-sea Pacific Trawl** — Identified and collected deep-sea marine fishes and tissue samples from 25 trawls within the La Jolla Fan Valley aboard the R/V Robert Gordon Sproul. San Diego, California.
- Biodiversity Institute, University of Kansas** — Visited the collections to observe and digitize specimens for research.
- 2015 **Field Museum** — Visited collections to request loans and to observe and digitize specimens for research. Chicago, Illinois.

PUBLIC OUTREACH AND EDUCATION

- 2023 **Coral Reefs and the Deep Sea**, Presentation to 2nd and 3rd grade summer “-ologies” camp about coral reefs and my research on the deep sea. American Museum of Natural History, New York, New York, August 16th.
- GSTEM Collections Tour**, American Museum of Natural History, toured the students from the NYU's GSTEM program through the Ichthyology Collection and also talked about women in science. New York, New York, July 28th.
- Renaissance Youth Center Collections Tour**, American Museum of Natural History, toured the students from the Renaissance Youth Center through the Ichthyology Collection. New York, New York, July 18th.
- BioBlitz: Renaissance Youth Center**, Fish expert for BioBlitz event targeting education and outreach with at-risk inner-city youth in the Renaissance Youth program from the South Bronx. Shandaken, New York, June 2nd - 4th.
- Fish Dissection**, Helped guide and educate 1st grade students in dissecting fishes. Marine Biology class, American Museum of Natural History, New York, New York, March 15th.
- The Deep Sea**, Presentation to 1st grade Marine Biology class about the deep sea, the organisms that live there, and how we study the deep sea. American Museum of Natural History, New York, New York, March 10th.
- Trustee Collections Tour**, American Museum of Natural History, met one-on-one with a trustee and discussed my research and gave them a tour of the collection. New York, New York, March 8th.

- 2022**
- Collections / Lab Tour**, University of Kansas Natural History Museum, met one-on-one with a Haskell University Native American student interested in research on deep-sea fishes. Lawrence, Kansas, October 10th.
 - Jellies and Lanterns**, Lawrence Public Library, Lawrence, Kansas, July 6th.
 - Meet a Marine Biologist**, Topeka and Shawnee County Public Library, Topeka, Kansas, July 5th.
 - Deep-sea Fishes**, 'Imaginarium: Extreme Ocean Animals,' Lawrence Public Library, Lawrence, Kansas, June 27th.
 - Bioblitz**, Topeka Riverbank Restoration Project, Friends of the Kaw, Kaw River State Park, Kansas, May 7th.
 - Deep-sea Fishes Booth**, 'Women in Science,' University of Kansas Natural History Museum, Lawrence, Kansas, March 26th.
 - Fish Bones of the Kaw Booth**, 'Bones of the Kaw,' University of Kansas Natural History Museum and Friends of the Kaw, Lawrence, Kansas, March 24th.
 - Collections Tour**, University of Kansas Natural History Museum, met one-on-one with a high school student interested in scientific illustration. Lawrence, Kansas, February.
- 2021**
- NOAA Professional Development for educators**, Midwest area. Guest expert on bioluminescence. Virtual. November.
 - Collections Tour**, University of Kansas Natural History Museum, gave a brief talk to a class in the Panorama and toured them through the wet collection. Lawrence, Kansas, September.
 - Scientist Participant** in Letters to a Pre-Scientist (an organization recognized for excellence in supporting women and girls in STEM, making the shortlist for the Nature Research Innovating Science Award).
 - Freaky Fishes**, 'Macabre at the Museum,' University of Kansas Natural History Museum, Lawrence, Kansas, October.
 - Members Night**, 'Deep Scattering Layer,' presentation, University of Kansas Natural History Museum, Lawrence, January 28th. Virtual.
 - Meet a Marine Biologist**, Presentation to Girl Scouts around Lawrence, Kansas. Virtual. February 7th.
- 2020**
- Fish Reproduction Booth**, 'Sexy Science,' University of Kansas Natural History Museum, Lawrence, Kansas, February.
 - Ichthyology Collections**, 'Collections up Close,' University of Kansas Natural History Museum and University of Kansas Union, Lawrence, Kansas, February.
 - My Dive into Deep-Sea Research**, presented to the University of Kansas SEEDS (Ecology) Club, University of Kansas, Lawrence, Kansas, February.
 - Scientist Participant** in Letters to a Pre-Scientist (an organization recognized for excellence in supporting women and girls in STEM, making the shortlist for the Nature Research Innovating Science Award).
- 2019**
- Learn How to Fish**, taught girl scouts at Camp Tongawood how to fish, Tonganoxie, Kansas, June.
 - Threatened and Endangered Fish Species**, 'Discovery Day: Endangered Species,' University of Kansas Natural History Museum, Lawrence, Kansas, December 8th.
 - Freaky Fishes**, 'Macabre at the Museum,' University of Kansas Natural History Museum, Lawrence, Kansas, October.
 - Fishes of the Deep Sea Booth**, 'Discovery Day: Marine Life,' University of Kansas Natural History Museum, Lawrence, Kansas, May 24th.
 - Deep-sea Diversity**, 'Science Night,' Lawrence Beer Company, Lawrence, Kansas, March.
 - Fish Reproduction Booth**, 'Sexy Science,' University of Kansas Natural History Museum, Lawrence, Kansas, February.

- Scientist Participant** in Letters to a Pre-Scientist (an organization recognized for excellence in supporting women and girls in STEM, making the shortlist for the Nature Research Innovating Science Award).
- 2018** **Deep-sea Macabre Fishes Booth**, 'Macabre at the Museum,' University of Kansas Natural History Museum, Lawrence, Kansas, October.
- Scientist Participant** in Letters to a Pre-Scientist (an organization recognized for excellence in supporting women and girls in STEM, making the shortlist for the Nature Research Innovating Science Award).
- Ichthyology Deep-sea Collections**, 'Collections up Close,' University of Kansas Union, Lawrence, Kansas, April.
- Deep-sea Diversity**, 'Science Night', Lawrence Beer Company, Lawrence, Kansas, March.
- Fish Reproduction Booth**, 'Sexy Science,' University of Kansas Natural History Museum, Lawrence, Kansas, February.
- 2017** **Deep-sea Fishes Booth**, 'Science of the Macabre', University of Kansas Natural History Museum, Lawrence, Kansas, October.
- 2014** **Invasive Species Awareness**, 'The Global Social Responsibility Conference,' St. Cloud State University, St. Cloud, Minnesota. Oral Presentation.
- Co-creator** of interpretive trail signs for educational purposes at Camp Ripley, Minnesota

MEDIA APPEARANCES AND FEATURES

- 2023** **Featured** on the **'PikaScience Podcast,'** episode "Pokescience: PokeCollege - Where Did That Egg Come From?" Hosted by Cecilia Adele.
- 2022** **Featured** in **'Amplified Voices: A Collection of Discussion from Women of Fisheries.'** Fisheries Magazine. Article by Heather Moncrief-Cox.
- Featured** on 'Art in Bio,' ICB author Noah Bressman & **IOB author Rene P. Martin.** Article by Suzanne Miller and Andrew Saintsing.
- 2021** **Midwest Area Expert** on NOAA's Professional Development **live event on Bioluminescence.**
- Guest Expert** on NOAA's 'Deep-Sea Dialogues' series video **Bioluminescence.**
- Featured** on the University of Kansas' Office of Research 'News,' **KU Researcher Fosters Online Community of Fish Scientists and Artists.**
- Featured** on the San Francisco 'Estuary News,' **A Stream of Science Takeaways.**
- Featured** on 'Our Ocean and You,' **Rene Martin: Ph.D. Student, Deep-sea Scientist, Artist.**
- Featured** in a video focused on **Red-tailed hawk tracking research** ongoing at KU.
- Featured** on 'Women of Fisheries,' **Talented Women in Art and Marine Science.**
- Interviewed** by 'Inside Science' discussing a recent publication on a **fossil lanternfish otoliths.** Article by Joshua Learn.
- 2020** **Highlight** of Alaska SeaLife Center's video series 'Telequarium' **#SundayFishSketch Draw Along.** Multiple weekly videos.
- Featured** on the 'Fisheries Podcast,' episode 107, student update episode, Where Are They Now? Hosted by Kansas Fisheries Biologist Nick Kramer.
- Featured** on 'Seaside with Emily,' **Why I pursued Marine Research: Stories from Scientists Around the World.**
- Interviewed** by 'Popular Science' discussing a recent publication on a **bioluminescent gene in pyrosomes.** Article by Maria Paula Rubiano.
- 2019** **Interviewed** by 'PBS NOVA' discussing a recent publication on **Green Biofluorescence in Sharks.** Article by Katherine Wu.

- Featured** on the ‘Fisheries Podcast,’ episode 28, discussing Deep-sea Research, Expeditions, and the #SundayFishSketch. Hosted by Kansas Fisheries Biologist Nick Kramer.
- 2018** **Interviewed** by ‘The Scientist,’ discussing a recent publication on **lanternfish diversification**. Article by Jim Daley.
- Featured** on the University of Washington’s **Blog post** regarding the #SundayFishSketch on Twitter.
- Featured** on the **Fisheries Blog** regarding the #SundayFishSketch on Twitter
- 2017** **Martin, R.P.** (2017) Backpage article: **Art of the Deep**. *Fisheries*. 42:244
- 2016** **Photographs used in news articles** —
- University of Kansas: **New research shines light on surprising numbers and evolutionary variety of bioluminescent ocean fishes**
 - Mashable: **Far more fish make their own light than we thought, study finds**
 - Live Science: **Flash Mob! Glowing in Fishes More Widespread Than Thought**
 - Ars Technica: **Evolution favors the bioluminescent**

ACHIEVEMENTS

- 2023** **Art piece used in BioNexus Science to Art Flyer**, proceeds benefit STEAM education in the KC region.
- 2022** **Frederick H. Stoye Award for Best Student Presentation in Genetics, Development, and Morphology** (\$300), ‘Olfactory Organ Anatomy Across Deep-sea Lanternfishes,’ American Society of Ichthyologists and Herpetologists
- 2021** **Cleared and Stained Fish art piece chosen for BioNexus Science to Art auction**, proceeds benefit STEAM education in the KC region
- 2020** **Four art pieces chosen for LibArt exhibition**, University of Kansas, **one awarded ‘Top Honors’**
- 2019** **CT Scan art piece chosen for BioNexus Science to Art auction** (\$375), proceeds benefit STEAM education in the KC region
- Five art pieces chosen for LibArt exhibition**, University of Kansas, **two awards**
- 2018** **Distinguished Masters Thesis Award - 2017** (\$200), St. Cloud State University
- 2016** **Outstanding Graduate Student Award**, St. Cloud State University
- Denise McGuire Student Research Award** (\$200), St. Cloud State University
- 2015** **Denise McGuire Student Research Award** (\$200), St. Cloud State University
- Tracy Storer Award for Best Student Poster, Ichthyology** (\$300), ‘Evolution of Jaw Shape and Length Variation in Deep-sea Lanternfishes (Teleostei: Myctophiformes),’ American Society of Ichthyologists and Herpetologists

STUDENT MENTORING

- Emily Carr** (First Year) Ph.D. Student (2023), American Museum of Natural History. Mentored in database searching, clearing and staining techniques, histological methods, and museum specimen analysis of morphology.
- Lauren Meyer** (Senior). B.S. (2022), University of Kansas. Mentored in freshwater fish sampling techniques (e.g., seining) and investigation/use of museum database.
- Dylan Wootton** (Junior/Senior). B.S. (2022), University of Kansas. Mentored in the use of stereomicroscopes and the assessment of olfactory organs in fishes.
- Matt Jones** (Fifth Year) Ph.D. Student (2021), University of Kansas. Mentored in the use of geometric morphometrics and landmark placement on fossil bat dentition.
- Heidi Burns** (Junior/Senior). B.S. (2019-2020), University of Kansas. Mentored in the use of stereomicroscopes and measurement of lanternfish olfactory organs.
- Katelyn Schmidlein** (Sophomore). B.S. (2018), University of Kansas, KS. Mentored in specimen imaging and geometric morphometrics.

Abbey Dias (Senior). B.S. (2018), Whitman College, WA. Mentored in manuscript writing and Micro-CT scanning techniques.

Emily Olson (Senior). B.S. (2015), St. Cloud State University, MN. Mentored in species identification, specimen imaging, and phylogenetic techniques.

JOURNAL REVIEWS

- Ichthyology & Herpetology (8)
- Deep-Sea Research Part I (1)
- Journal of Fish Biology (3)
- Marine Biology Research (1)
- Marine Science and Engineering (1)
- Nature: Communications Biology (1)
- Paleobiology (1)
- Phuket Marine Biological Center Research Bulletin (2)
- Zootaxa (4)

SYNERGISTIC ACTIVITIES AND PROFESSIONAL SERVICE

Committees —

- 2021** **Leaman D. Harris Committee**, University of Kansas Biodiversity Institute
- 2020–2021** **Fundraising Committee**, University of Kansas Ecology and Evolutionary Biology Graduate Student Organization
- 2019–2020** **Student Representative for the Biodiversity Institute Research Planning Committee**, University of Kansas Ecology and Evolutionary Biology Graduate Student Organization
- 2019** **Ichthyology Best Paper in *Copeia* Committee**, American Society of Ichthyologists and Herpetologists
- Panorama Grant Review Committee**, University of Kansas Biodiversity Institute
- 2018–2019** **Social Committee**, University of Kansas Ecology and Evolutionary Biology Graduate Student Organization
- Student Representative for the Graduate Program Committee**, University of Kansas Ecology and Evolutionary Biology Graduate Student Organization
- 2017** **Research and Travel Awards Committee**, University of Kansas Ecology and Evolutionary Biology Graduate Student Organization
- Social Media Committee**, University of Kansas Ecology and Evolutionary Biology Graduate Student Organization

Officer Positions —

- 2020–2021** **Co-president**, University of Kansas Ecology and Evolutionary Biology Graduate Student Organization
- 2016** **President**, St. Cloud State Biology Graduate Student Association
- 2015** **Vice President**, St. Cloud State Biology Graduate Student Association
- 2013–2014** **Vice President**, St. Cloud State Ecology Club

Other —

- 2023** **Session Mediator**, for the Joint Meeting of Ichthyologists and Herpetologists, Norfolk Virginia, July 2023.
- Judge**, for student talk Stoye awards for “Genetics, Development, & Morphology at the Joint Meeting of Ichthyologists and Herpetologists, Norfolk Virginia, July 2023.
- Reviewer**, for the Lerner Gray student grant proposals, American Museum of Natural History, April.
- 2020–2023** **Author for the ‘Fisheries Blog,’** <https://thefisheriesblog.com>

- 2021** **Guest Panelist**, Science and Art, Bay Delta Science Conference, April 7th. Virtual <http://baydeltascienceconference.org>
- Guest Speaker**, Class: Evolutionary Biology, Upward Bound UNITE, University of Kansas, Lawrence, Kansas, June 30th, Instructor: Matthew Jones. Virtual
- Guest Panelist**, STEM + Art, Vanderbilt University, Nashville, Tennessee, June 11th. Virtual
- Judge**, Canadian Science Publishing 2021 Visualizing Science contest <https://blog.cdnsiencepub.com/visualizing-science-through-sketching/>
- Onshore Scientist**, NOAA's Okeanos Ocean Explorer Midwater dives, June 25th, July 28th
- 2020** Created fish coloring pages, for use by the University of Kansas Natural History Museum, available for [download](#)
- Created a [video](#) on a step-by-step process on how to use iNaturalist, for use by the University of Kansas Natural History Museum
- Science Fair Judge**, Langston Hughes Elementary School, Lawrence, Kansas, January
- 2013–2016** **Tutor**, Ecology and Field Biology, St. Cloud State University
- Volunteer**, North American Amphibian Monitoring Program, Minnesota
- 2014** **Volunteer**, Christmas Bird Count, Minnesota
- 2013** **Judge**, Central Minnesota Science Fair, St. Cloud State University
- 2012** **Volunteer**, Invasive Plant Monitor, Maplewood Nature Center, Minnesota

PROFESSIONAL MEMBERSHIPS, AFFILIATIONS, AND CERTIFICATIONS

- 2015–2023** American Society of Ichthyologists and Herpetologists
- 2015–2018** Society of Systematic Biologists
- 2018–2022** Society for Integrative and Comparative Biology
- 2021–2022** Society for the Study of Evolution
- 2021–2022** Deep-Sea Biology Society
- 2023** PADI open water SCUBA certification

WORKSHOPS/SYMPOSIA ATTENDED

- 2022** **Genetics Symposium** hosted by KU Center for Genomics, University of Kansas, Lawrence, Kansas.
- 2020** **Introduction to Python** workshop hosted by the Ecology and Evolutionary Biology Graduate Student Organization, the Society for Advancement of Chicanos/Hispanics and Native Americans in Science Student Organization, and Dr. John Kelly, University of Kansas, Lawrence, Kansas.
- 2019** **Comparative Phylogenetics in R** workshop hosted by the Joint Meeting of Ichthyologists and Herpetologists, Snowbird, Utah.
- 2018** **Friday Harbor Laboratories Fish Biomechanics Course**: Learned collection techniques (trawling, seining, night-lighting, tide-pooling), micro-CT scanning, software programs involving 3D data manipulation, fish biomechanics, manuscript preparation, presentation skills.
- Software Carpentry (Python and Unix Shell)** workshop hosted by the Software Carpentry Foundation, University of Kansas, Lawrence, Kansas.
- Webscrapping** workshop hosted by Dr. Mark Holder and the Society for Advancement of Chicanos/Hispanics and Native Americans in Science Student Organization, University of Kansas, Lawrence, Kansas.
- 2016** **Python-based UCE** Workshop hosted by the University of Minnesota, St. Paul, MN
- 2015** **Systematics** workshop hosted by the Society of Systematic Biologists, University of Michigan, Ann Arbor, Michigan.

PROFESSIONAL REFERENCES

Dr. Wm. Leo Smith

Associate Professor of Ecology and Evolutionary Biology
Associate Curator, Ichthyology
Biodiversity Institute
University of Kansas
1450 Jayhawk Blvd.
Lawrence, KS 66045
(785) 864-6874
leosmith@ku.edu

Dr. Matthew Davis

Assistant Professor of Biology
St. Cloud State University
720 4th Ave S.
St. Cloud, MN 56301
(320) 308-3222
mpdavis@stcloudstate.edu

Dr. Bruce Lieberman

Director of Paleontological Institute
Professor of Ecology and Evolutionary Biology
Senior Curator, Invertebrate Paleontology
Biodiversity Institute
University of Kansas
1450 Jayhawk Blvd.
Lawrence, KS 66045
(785) 864-2741
blieber@ku.edu

Nick Kramer

Perry District Fisheries Biologist
Northeast Kansas Regional Habitat Coordinator
Kansas Department of Wildlife and Parks
5441 West Lake Rd.
Ozawkie, KS 66070
Office: 785-246-4514
Cell: 785-256-3721

Dr. Robert Moyle

Professor of Ecology and Evolutionary Biology
Senior Curator, Ornithology
Biodiversity Institute
University of Kansas
1450 Jayhawk Blvd.
Lawrence, KS 66045
(785) 864-1870
moyle@ku.edu