

# Jonathan Michael Huie

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## EDUCATION

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- 2020 – pres. Ph.D. student in Biology (emphasis on systematics, evolution, and ecology)  
George Washington University, Washington, DC  
Advisor: Dr. Sandy Kawano
- 2015 – 2019 B.S. in Aquatic and Fishery Sciences & Marine Biology Double Major  
University of Washington, Seattle, WA  
Advisor: Dr. Luke Tornabene

## PROFESSIONAL POSITIONS

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- 2021 – pres. Graduate Student Fellow, Smithsonian National Museum of Natural History
- 2020 – 2025 NSF Graduate Research Fellow, George Washington University
- 2019 – 2020 Micro-CT Lab Technician, Friday Harbor Laboratories

## PEER-REVIEWED PUBLICATIONS (U = undergraduate student; \* = Co-first authorship)

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11. de Queiroz K, **Huie JM**, Langan EM. *Accepted*. No longer in doubt: discovery of a second specimen corroborates the validity of *Anolis incredulus* Garrido and Moreno 1998 (Reptilia, Iguania). *Zootaxa*.
10. **Huie JM**<sup>\*</sup>, Wainwright DK<sup>\*</sup>, Summers AP, Cohen KE. 2022. Sticky, stickier, and stickiest: a comparison of adhesive performance in clingfish, lumpsuckers, and snailfish. *Journal of Experimental Biology* 225(22): jeb244821.
9. Brodnicke OB<sup>\*</sup>, Hansen CE<sup>\*</sup>, **Huie JM**, Brandl S, Worsaae K. 2022. Trophic morphology and the functional impact of small, sand-sifting fish on coral reefs. *Functional Ecology* 36: 1936-1948.
8. **Huie JM**, Summers AP. 2022. The effects of soft and rough substrates on suction-based adhesion. *Journal of Experimental Biology* 225(9): jeb243773.
7. **Huie JM**, Summers AP, Kawano SM. 2022. SegmentGeometry: a tool for measuring second moment of area in 3D Slicer. *Integrative Organismal Biology* 4(1): 1-10.
6. Woodruff EC<sup>U</sup>, **Huie JM**, Summers AP, Cohen KE. 2022. Pacific Spiny Lumpsucker armor - development, damage, and defense in the intertidal. *Journal of Morphology* 283(2): 164-173.
5. **Huie JM**, Prates I, Bell RC, de Queiroz K. 2021. Convert patterns of adaptive radiation between island and mainland *Anolis* lizards. *Biological Journal of the Linnean Society* 134(1): 85-110.
4. **Huie JM**, Thacker CE, Tornabene L. 2020. Co-evolution of cleaning and feeding morphology in western Atlantic and eastern Pacific gobies. *Evolution* 74(2): 419-433.
3. George MN, Andino J, **Huie JM**, Carrington E. 2019. Microscale pH and dissolved oxygen fluctuations within mussel aggregations and their implications for mussel attachment and raft aquaculture. *Journal of Shellfish Research*, 38(3) 795-809.
2. **Huie JM**, Summers AP, Kolmann MA. 2019. Body shape separates guilds of rheophilic herbivores (Myleinae: Serrasalminae) better than feeding morphology. *Proceedings of the Academy of Natural Sciences in Philadelphia* 166(1): 1-15.
1. Kolmann MA, **Huie JM**, Evans KM, Summers AP. 2018. Specialized specialists and the narrow niche fallacy: a tale of scale-feeding fishes. *Royal Society open science* 5(1): 171581.

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## PUBLICATIONS IN REVIEW AND IN PREP

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1. Heiple Z, **Huie JM**, Medeiros A, Hart P, Goatley, Arcila D, Miller EC. *In Review*. Many ways to build an angler: An analysis of feeding morphologies in a radiation of deep-sea fishes. *Biology Letters*.
2. Hoover RC, Hawkins OH, Rosen J, Wilson CD, Crawford CH, Holst M, **Huie JM**, Summers AP, Donatelli CM, Cohen KE. *In Review*. It pays to be bumpy: drag reducing armor in the Pacific spiny lump sucker, *Eumicrotremus orbis*. *Integrative Comparative Biology*.

## BOOK CHAPTERS

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1. Kolmann MA, Bonato K, Evans KM, **Huie JM\***, Malabarba L. *In Prep*. Ecological diversity of Neotropical ectoparasitic fishes.

## RESEARCH GRANTS, FELLOWSHIPS, AND AWARDS (total: \$176, 387)

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- 2023 American Society for Ichthyology and Herpetology Gaige Fund Award (**\$600**)
- 2023 Washington Biology Field Club Research Award (**\$2534**)
- 2022 Stephen and Ruth Wainwright Endowment Fellowship (**\$1500**)
- 2022 George Washington University Student Travel Funds – SICB (**\$515**)
- 2021 Wilbur V. Harlan Research Fellowship (**\$7,000**)
- 2020 NSF Graduate Research Fellowship (**\$138,000**)
- 2019 Friday Harbor Laboratories Student SICB Travel Funds – SICB (**\$250**)
- 2019 UW Undergraduate Research Conference Travel Award – Evolution (**\$563**)
- 2018 UW Undergraduate Research Conference Travel Award – SICB (**\$573**)
- 2018 Best Student Presentation, Gilbert Ichthyological Society
- 2018 Levinson Emerging Scholars Award (**\$7,000**)
- 2018 Melvin Anderson Memorial Scholarship (**\$2,000**)
- 2018 NSF REU Internship at the Smithsonian National Museum of Natural History (**\$6,000**)
- 2018 Mary Gates Research Scholarship (**\$5,000**)
- 2017 College of the Environment Student Travel Fund – SICB (**\$402**)
- 2017 School of Aquatic and Fishery Sciences Travel Award – SICB (**\$500**)
- 2017 Friday Harbor Labs Ellie Dorsey Best Student Presentation Award (**\$200**)
- 2017 Wilbert McLeod Chapman Memorial Scholarship (**\$1,000**)
- 2017 Mary Gates Endowment Scholarship (**\$1,250**)
- 2016 Friday Harbor Laboratories Financial Aid (**\$500**)
- 2015 Hearing Loss Association Scholarship (**\$1,000**)

## TEACHING EXPERIENCE

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- 2021 **Guest Instructor:** Mid-Atlantic Funky Morph Users Group, Intro to 3D Slicer (1 session)
- 2021 **Teaching Assistant:** George Washington University, BISC 3123, Human Physiology Lab (1 semester)
- 2020 **Teaching Assistant:** George Washington University, BISC 1111, Intro Biology Lab (1 semester)
- 2016 **Field Trip Leader,** University of Washington, BIOL 250, Marine Biology (1 quarter)

## MUSEUM AND FIELD EXPERIENCE

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- 2021 – pres. Collection of salamanders from Southeast United States (VA, NC, TN, KY, WV)
- 2021 Visiting Researcher, University of Washington Friday Harbor Laboratories
- 2019 Visiting Researcher, Harvard Museum of Comparative Zoology
- 2018 Visiting Researcher, UC Berkeley Museum of Vertebrate Zoology

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2018 Visiting Researcher, California Academy of Sciences  
2018, 2019 Visiting Researcher, Smithsonian National Museum of Natural History

## INVITED SEMINARS

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- 2023 **Huie JM.** Best of both worlds: morphological adaptations in fishes and salamanders. The SUNY Geneseo Biology Seminar Series, Rochester, NY.
- 2023 **Huie JM.** Best of both worlds: biomechanical adaptations in fishes and salamanders. The George Washington University Seminar Series, Washington, DC.
- 2022 **Huie JM.** Evolutionary form and function across ecological gradients. California State University, Long Beach Seminar Series. Long Beach, CA.
- 2022 **Huie JM.** Evolutionary form and function across ecological gradients. Wake Forest University Seminar Series. Winston-Salem, NC.
- 2021 **Huie JM.** The evolution of habitat and morphology in amphibians and reptiles. Smithsonian National Museum of Natural History, Vertebrate Zoology Seminar. Washington, DC.
- 2021 **Huie JM.** Scale scrapers & parasite pickers: many ways to build a specialist. Joint Meeting for Ichthyologists and Herpetologists, Invited Symposium Speaker. Phoenix, AZ.
- 2019 **Huie JM.** Heroes and villains: Using microCT to study the evolution of interspecific relationships in fishes. Friday Harbor Labs Fall Seminar Session, Friday Harbor, WA.

## PRESENTATIONS

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- 2023 **Huie JM,** Crawford CH, Kane EA, Evans A, Cohen KE, Buser TJ, Kolmann MA. The enemy of your anemone: feeding kinematics and biomechanics of a narrow niche cnidarian nibbler. Society for Integrative and Comparative Biology Annual Meeting, Austin, TX. (Oral, in-person & virtual)
- 2023 **Huie JM,** Wainwright DK, Summers AP, Cohen KE. A sticky ichthy trinity: adhesive performance in clingfish, lumpsuckers, and snailfish. Society for Integrative and Comparative Biology Annual Meeting, Austin, TX. (Poster, in-person & virtual)
- 2022 **Huie JM,** Pyron RA, Kawano SM. The effects of habitat and development on the evolution of salamander limb bones. Society for Integrative and Comparative Biology Annual Meeting, Phoenix, AZ. (Oral, in-person & virtual)
- 2021 **Huie JM,** Pyron RA, Kawano SM. Do you have a second moment to talk about salamander limbs? George Washington University Harlan Research Symposium. (Poster)
- 2021 **Huie JM,** Hall KC, Summers AP, Conway, K.W. Stick with it: potential convergent evolution of eco-morphotypes in clingfishes. Society for Integrative and Comparative Biology Annual Meeting. *Best student presentation competitor for the Division of Vertebrate Morphology.* (Oral, virtual)
- 2020 **Huie JM,** Tornabene L. A family of thrifty sifters: morphological variation of winnowing gobies. Joint Meeting for Ichthyologists and Herpetologists. Norfolk, VA. (Meeting canceled due to Covid-19)
- 2020 **Huie JM,** Thacker C, Tornabene L. Co-evolution of cleaning and morphology in Caribbean and eastern Pacific gobies. Society for Integrative and Comparative Biology Annual Meeting, Austin, TX. (Oral)
- 2019 **Huie JM,** Thacker C, Tornabene L. Co-evolution of cleaning and morphology in Caribbean and eastern Pacific gobies. Gilbert Ichthyological Society Annual Meeting, Eatonville, WA. (Oral)

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- 2019 **Huie JM**, Tornabene L. Co-evolution of cleaning and morphology in Caribbean neon gobies. Joint Meeting for Ichthyologists and Herpetologists, Snowbird, UT. *Best student presentation competitor for the Frederick H. Stoye Ichthyology Award*. (Oral)
- 2019 **Huie JM**, Prates I, Bell RC, de Queiroz K. Morphological diversification of mainland *Draconura* clade anoles. Evolution Meeting, Providence, RI. (Oral)
- 2019 **Huie JM**, Tornabene L. Co-evolution of morphology and cleaning in Caribbean cleaner gobies. University of Washington Undergraduate Research Symposium, Seattle, WA. (Oral)
- 2019 **Huie JM**, Summers AP, Kolmann MA. Body shape and feeding morphology explain ecological differences in riverine herbivorous fishes. Society for Integrative and Comparative Biology, Tampa, FL. (Oral)
- 2018 **Huie JM**, Evans KM, Summers AP, Kolmann MA. Diversity of tooth form and function in scale-feeding fishes. Gilbert Ichthyological Society Annual Meeting, Blue River, OR. (Oral) *Won best student presentation*
- 2018 **Huie JM**, Prates I, Bell RC, de Queiroz K. Morphological and ecological diversity of mainland *Draconura* clade anoles. National Museum of Natural History NSF REU Research Symposium, Washington, D.C. (Poster)
- 2018 **Huie JM**, Summers AP, Kolmann MA. Are all herbivores created equal? Linking diet and morphology in phytophagous pacus. University of Washington Undergraduate Research Symposium, Seattle, WA. (Oral)
- 2018 **Huie JM**, Evans K, Summers AP, Kolmann MA. Ontogeny of jaw biomechanics in lepidophagous fishes. Society for Integrative and Comparative Biology Annual Meeting, San Francisco, CA. (Poster)

## CO-AUTHORED PRESENTATIONS (U = undergraduate student)

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- 2023 Wagner M, Respl P, Koblmüller S, **Huie JM**, Svardal H. High levels of morphological and genomic parallelism in the interstitial clingfish genus *Gouania*. European Ichthyological Society, Prague, Czech Republic. (Oral)
- 2023 Lungstrom LL, Westneat MW, **Huie JM**, Kolmann MA, Cohen KE. Sink your teeth into the puncture performance of a payara pendulum. International Congress of Vertebrate Morphology, Cairns, Australia. (Oral)
- 2023 Quigley ZMG, **Huie JM**, Pyron RA, Kawano SM. Kinematic variation in ecologically diverse *Desmognathus* salamanders during terrestrial locomotion. Society for Integrative and Comparative Biology Annual Meeting, Austin, TX. (Oral)
- 2023 Lungstrom LL, Westneat MW, **Huie JM**, Kolmann MA, Cohen KE. Sink your teeth into the puncture performance of a payara pendulum. Society for Integrative and Comparative Biology Annual Meeting, Austin, TX. (Oral)
- 2023 Drupta S<sup>U</sup>, Donatelli CM, Summers AP, **Huie JM**, Cohen KE. The Hardest Part is Letting Go: Shear Adhesion in the Northern Clingfish. Society for Integrative and Comparative Biology Annual Meeting, Austin, TX. (Oral)
- 2023 Poulin E, **Huie JM**, Chabain JJ, Cohen KE, Kolmann MA, Martinez CM. Making a point: exploring the form and function of stingray spines. Society for Integrative and Comparative Biology Annual Meeting, Austin, TX. (Oral)
- 2023 Hoover RC, Hawkins O, Rosen J, Wilson C, Crawford CH, Holst M, **Huie JM**, Summers AP, Donatelli CM, Cohen KE. The hydrodynamic cost of armor and its tradeoff with adhesion across ontogeny in *E. orbis*. Society for Integrative and Comparative Biology Annual Meeting, Austin, TX. (Oral)

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- 2022 Heiple Z<sup>U</sup>, **Huie JM**, Hart P, Goatley C, Arcila D, Miller EC. Many ways to build an angler: An analysis of feeding morphologies in deep sea anglerfishes (Ceratioidei: Lophiiformes). Joint Meeting for Ichthyologists and Herpetologists, Spokane, WA. (Oral)
- 2022 Heiple Z<sup>U</sup>, **Huie JM**, Goatley C, Arcila D, Miller EC. The diversity of deep sea anglerfishes: describing trends in cranial and tooth morphologies. Society for Integrative and Comparative Biology Annual Meeting, Phoenix, AZ. (Poster)
- 2022 Woodruff EC<sup>U</sup>, **Huie JM**, Summers AP, Cohen KE. *In review*. Morphology, ontogeny, and investment of the abrasion resistant lumpsucker armor. Society for Integrative and Comparative Biology Annual Meeting, Phoenix, AZ. (Poster)
- 2021 Wagner M, Real P, Koblmüller S, **Huie JM**, Svoldal H. Parallel evolution and genomics of adaptations in interstitial clingfishes. Network of Biological Systematics Austria Annual Meeting. (Oral, virtual)
- 2021 Kolmann MA, MacLeod L, Racy JM, **Huie JM**, Donatelli CM, Summers AP. Carnivorous Grazers Part Deux! Form and function in scale-feeding and fin-feeding Neotropical fishes. Joint Meeting for Ichthyologists and Herpetologists. Phoenix, AZ. (Oral, virtual)
- 2021 Palecek-McClung AM, **Huie JM**, Cohen KE, Donatelli CD, Summers AP. Stuck on you: How pelvic girdle morphology influences adhesion. Society for Integrative and Comparative Biology. (Poster, virtual)
- 2020 Kolmann MA, Hughes LC, Evans K, **Huie JM**, Orti G, Hernandez LP. Carnivorous grazers? How to build scale-feeding and fin-feeding fishes from less egregious relatives. Society for Integrative and Comparative Biology Annual Meeting, Austin, TX. (Oral)
- 2018 Kolmann, MA, **Huie JM**, Evans KM, Summers AP. View to a keel: aggression, armor, and scale-feeding in piranhas. Society for Integrative and Comparative Biology Annual Meeting, San Francisco, CA. (Oral)

## ACADEMIC SERVICE

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- 2022 – pres. Chair of the GWU Biology Graduate Student Council
- 2022 – pres. Member of the GWU Biology Diversity Equity and Inclusion Committee
- 2021 Panelist for George Washington University CCAS Info Session on NSF GRFP
- 2021 Panelist for California Academy of Sciences REU Info Session on Grad School
- 2021 Co-organizer of the Mid-Atlantic Funky Morph Users Group
- 2020 – pres. Outreach Associate, *Integrative Organismal Biology* (SICB)
- How to win a game of tag: lizard edition (blog post)
  - You can't stop the (heart) beat! (blog post)
  - Walk with your tail, not your legs (blog post)
- 2020 Panelist for Friday Harbor Labs REU Info Session on Grad School
- 2019 – 2020 Trained researchers how to micro-CT scan at Friday Harbor Labs, WA
- 2018 – 2019 Editor of *FieldNotes*, an undergraduate-run research journal

## PEER-REVIEWER

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Reviewer for: *Journal of Zoology* (1), *Integrative Comparative Biology* (1), *Frontiers in Cell and Developmental Biology* (1), *Journal of Experimental Biology* (1)

## OUTREACH

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- 2019 Polar Science Weekend volunteer, Pacific Science Center, Seattle, WA
- 2019 *Labs Unlocked*, UW Burke Fish Collection, Seattle, WA
- 2019 SAFS Open House volunteer, University of Washington, Seattle, WA
- 2018 *Scientist Is In*, Smithsonian National Museum of Natural History, Washington, DC

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2016 – 2017 Intern, Coastal Observation and Seabird Survey Team, Seattle, WA  
2017 Scientist in the classroom, Spring Street School, Friday Harbor, WA  
2016, 2017 Open House volunteer, Friday Harbor Laboratories, Friday Harbor, WA  
2016 Scientist in the classroom, Friday Harbor Elementary, Friday Harbor, WA  
2016 Scientist in the classroom, Stillpoint School, Friday Harbor, WA

## **PROFESSIONAL AFFILIATIONS**

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2017 – pres. Society for Integrative and Comparative Biology; DCB, DVM  
2019 – 2021 Society for the Study of Evolution  
2019 – pres. American Society of Ichthyologists and Herpetologists  
2018 – 2020 Gilbert Ichthyological Society  
2017 – pres. PADI Open Water

Last updated: 5/25/2023