

JAMES P. BERNOT

<https://BernotLab.org>

Assistant Professor

Department of Ecology & Evolutionary Biology

University of Connecticut

james.bernot@uconn.edu

PROFESSIONAL APPOINTMENTS

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|--------------|--|
| 2024–present | Assistant Professor Department of Ecology & Evolutionary Biology University of Connecticut, Storrs |
| 2015–present | Research Fellow Smithsonian National Museum of Natural History |
| 2021–2024 | National Science Foundation Postdoctoral Research Fellow Smithsonian National Museum of Natural History Advisor: Anna Phillips |
| 2022–2023 | Visiting Postdoctoral Fellow (13 months) Natural History Museum, London Advisor: Geoff Boxshall |
| 2022–2023 | Visiting Postdoctoral Fellow (8 months) Senckenberg German Center for Marine Biodiversity Research Advisor: Pedro Martínez Arbizu |
| 2015–2020 | Research Assistant George Washington University and Children's National Hospital Clinical & Translational Science Institute. Informatics support and training. |

EDUCATION

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| 2015–2020 | PhD Genomics and Bioinformatics George Washington University Dissertation: Parasitic Copepod Evolution Advisor: Keith Crandall |
| 2012–2015 | MS Ecology & Evolutionary Biology University of Connecticut Thesis: Taxonomy, Systematics, and Host Associations of Cestodes of Triakid Sharks Advisor: Janine Caira |
| 2008–2012 | BS Biology University of Connecticut <i>summa cum laude</i> Thesis: On the Cestode Genus <i>Calliobothrium</i> and Their Triakid Shark Hosts Advisor: Janine Caira |

ACCESS TO RESEARCH DATA

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|----------------|---|
| ORCID ID | http://orcid.org/0000-0002-1769-8631 |
| Google Scholar | https://scholar.google.com/citations?user=9sa6KNwAAAAJ&hl=en |
| Web of Science | https://www.webofscience.com/wos/author/record/395421 |
| Research Gate | https://www.researchgate.net/profile/James_Bernot |

PUBLICATIONS

Superscripts ^{u,g} denote undergraduate and graduate student mentees, respectively

- (25) Boxshall GA, **Bernot JP.** (2025). The Hatschekiidae (Copepoda: Siphonostomatoidea) of Moreton Bay, Queensland, Australia, with a key to species reported from Australian waters. *Zootaxa*, 5716 (1): 11–65 <https://doi.org/10.11646/zootaxa.5716.1.2>
- (24) Lo Brutto K, Badalucco A, Mastrototaro F, **Bernot JP.** (2025). First occurrence of *Bonnierilla similis* Illg and Dudley, 1961 (Copepoda: Notodelphyidae) in the central Mediterranean Sea. *The European Zoological Journal*, 92:1, 1248–1254. <https://doi.org/10.1080/24750263.2025.2562896>

- (23) Boxshall GA, Nagasawa K, **Bernot JP.** (2025). The male of *Dinemoleus indeprensus* Cressey & Boyle, 1978 with a brief overview of sexual dimorphism in the family Pandaridae (Copepoda: Siphonostomatoida). *Plankton & Benthos Research*, 20165–174. <https://doi.org/10.3800/pbr.20.s165>
- (22) Dreyer D, **Bernot JP**, Olesen J, Kolbasov G, Høeg J, Machida R, Chan BKK. (2025). Phylogenomics of enigmatic crustacean y-larvae reveals multiple origins of parasitism in barnacles. *Current Biology*, 3356–3367.e4. <https://doi.org/10.1016/j.cub.2025.06.007>

Media coverage:

- <https://today.uconn.edu/2025/07/one-step-closer-to-solving-a-century-old-crustacean-mystery/>
- <https://www.iflscience.com/anyone-know-what-these-marine-y-larvae-grow-into-because-scientists-have-no-clue-80863>
- <https://www.sciencealert.com/mysterious-alien-looking-larva-identified-as-a-probable-parasite>
- <https://www.sciencedaily.com/releases/2025/09/250913112506.htm>
- <https://scitechdaily.com/what-are-these-creepy-creatures-scientists-close-in-on-century-old-crustacean-mystery/>
- <https://dailygalaxy.com/2025/09/strange-creature-mystery-being-uncovered/>
- <https://news.ssbcrack.com/mysterious-y-larvae-finally-identified-as-parasites-hidden-in-other-marine-animals/>

- (21) Deets GB, Boxshall GA, **Bernot JP.** (2025). A systematic revision of *Kroyeria* (Copepoda: Siphonostomatoida): five new species, eleven redescriptions, and a morphological phylogenetic analysis of the genus. *Journal of Parasitology*, 111: 315–373. <https://doi.org/10.1645/24-115>
- (20) **Bernot JP**, Khodami S, Boyen J, De Troch M, Boxshall GA, Martínez Arbizu P. (2025). Copepod phylogenomics supports Canuelloida as a valid order separate from Harpacticoida. *Molecular Phylogenetics and Evolution*, 206:1–9. <https://doi.org/10.1016/j.ympev.2025.108311>
- (19) **Bernot JP**, Boxshall GA, Kahara TC, Martínez Arbizu P. (2025). An updated key to the genera of Caligidae (Copepoda: Siphonostomatoida). *Journal of Parasitology*, 111:10–25. <https://doi.org/10.1645/24-97>
- (18) **Bernot JP**, Boxshall GA, Goetz FE, Phillips AJ. (2024). MicroCT illuminates the unique morphology of Shiinoidae (Copepoda: Cyclopoida), an unusual group of fish parasites. *PeerJ* 12:e16966:1–23. <https://doi.org/10.7717/peerj.16966>
- (17) Ismail N, Nishida Y, Ohtsuka S, Boxshall G, **Bernot JP.** (2024). First record of *Caligus dussumieri* Rangnekar, 1957 (Copepoda, Siphonostomatoida, Caligidae) from Malaysia, with notes on caligids found from Malaysia and on host-specificity of caligids on lutjanid fishes. *Biodiversity Data Journal*, 12: e116598:1–25. <https://doi.org/10.3897/BDJ.12.e116598>
- (16) Boxshall GA, **Bernot JP.** (2023). Resolving taxonomic and nomenclatural problems in the genus *Caligus* O.F. Müller, 1785 (Copepoda: Caligidae). *Zootaxa*, 5360:545–567. <https://doi.org/10.11646/Zootaxa.5360.4.5>
- (15) **Bernot JP**, Owen CL, Wolfe JM, Meland K, Olesen J, Crandall KA. (2023). Major revisions in pancrustacean phylogeny and evidence of sensitivity to taxon sampling. *Molecular Biology and Evolution*, 40:msad175:1–22. <https://doi.org/10.1093/molbev/msad175>

Media coverage:

- <https://www.smithsonianmag.com/science-nature/you-might-think-of-shrimp-as-bugs-of-the-sea-but-a-remarkable-discovery-shows-the-opposite-bugs-are-actually-shrimp-of-the-land-180986303/>
- (14) Hawdon JM, **Bernot JP.** (2022). Teaching Parasitology Lab Remotely using Live Streaming. *The American Biology Teacher*, 84:312–314. <https://doi.org/10.1525/abt.2022.84.5.312>

- (13) **Bernot JP**, Avdeyev P, Zamyatin A, Alexeev N, Dreyer Ng, Pérez-Losada M, Crandall KA. (2022). Chromosome-level genome assembly, annotation, and phylogenomics of the gooseneck barnacle *Pollicipes pollicipes*. *GigaScience*, 2022(11):1–16. <https://doi.org/10.1093/gigascience/giac021>
- (12) **Bernot JP**, Boxshall GA, Crandall KA. (2021). A synthesis tree of the Copepoda: integrating phylogenetic and taxonomic data reveals multiple origins of parasitism. *PeerJ*, 9:e12034:1–25. <https://doi.org/10.7717/peerj.12034>
- (11) Haskins IN, Wang B-D, **Bernot JP**, Cauley EC^g, Horvath A, Marks JH, Lee NH, Agarwal S. (2021). Genomics of Black American Colon Cancer Disparities: An RNA-Seq Study from an Academic, Tertiary Referral Center. *Surgery*, 170:1160–1167. <https://doi.org/10.1016/j.surg.2021.03.031>
- (10) **Bernot JP**, Rudy G^{u,g}, Erickson PT, Ratnappan R, Haile M, Rosa BA, Mitreva M, O'Halloran DM, Hawdon JM. (2020). Transcriptomic analysis of hookworm *Ancylostoma ceylanicum* life cycle stages reveals changes in GPCR diversity associated with the onset of parasitism. *International Journal for Parasitology*, 50:603–610. <https://doi.org/10.1016/j.ijpara.2020.05.003>
- (9) Boxshall GA, **Bernot JP**, Barton DP, Diggles BK, Yong RQ-Y., Atkinson-Coyle T, Hutson KS. (2020). Parasitic copepods of the family Lernanthropidae Kabata, 1979 (Copepoda: Siphonostomatoida) from Australian fishes, with descriptions of seven new species. *Zootaxa*, 4736:1–103. <https://doi.org/10.11164/zootaxa.4736.1.1>
- (8) Maynard T, Horvath A, **Bernot JP**, Karpinski B, Tavares ALP, Zeng ASQ, Spurr L, Olender J, Moody SA, Fraser CM, LaMantia AS, Lee, N. H. (2020). Transcriptional dysregulation in developing trigeminal sensory neurons in the LgDel mouse model of DiGeorge 22q11.2 Deletion Syndrome. *Human Molecular Genetics*, 29:1002–1017. <https://doi.org/10.1093/hmg/ddaa024>
- (7) Fujiogi M, Camargo Jr CA, **Bernot JP**, Freishtat RJ, Harmom B, Mansbach J, Castro-Nallar E, Perez-Losada M, Hasegawa K. (2020). In infants with severe bronchiolitis: dual-transcriptomic profiling of nasopharyngeal microbiome and host response. *Pediatric Research*, 88:144–146. <https://doi.org/10.1038/s41390-019-0742-8>
- (6) **Bernot JP**, Caira JN. (2019). Site specificity and attachment mode of *Symcallio* and *Calliobothrium* species (Cestoda: “Tetraphyllidea”) in smoothhound sharks of the genus *Mustelus* (Carcharhiniformes: Triakidae). *PeerJ*, 7:e7264:1–16. <http://doi.org/10.7717/peerj.7264>
- (5) **Bernot JP**, Boxshall GA. (2019). Two new species of parasitic copepods from the genera *Nothobomolochus* and *Unicolax* (Cyclopoida: Bomolochidae) from Australian waters. *PeerJ*, 7:e6858:1–38. <http://doi.org/10.7717/peerj.6858>
- (4) Hughes LC, Somoza GM, Nguyen BM, **Bernot JP**, González-Castro M, Díaz de Astarloa JM, and Ortí G. (2017). Transcriptomic differentiation underlying marine-to-freshwater transitions in the South American silversides *Odontesthes argentinensis* and *O. bonariensis* (Atheriniformes). *Ecology and Evolution*, 7(14), 5258–5268. <http://dx.doi.org/10.1002/ece3.3133>
- (3) **Bernot JP**, Boxshall GA. (2017). A new species of *Pseudopandarus* Kirtisinghe, 1950 (Copepoda: Siphonostomatoida: Pandaridae) from sharks of the genus *Squalus* L. in New Caledonian waters. *Systematic Parasitology*, 94:275–291. <https://doi.org/10.1007/s11230-016-9692-2>
- (2) **Bernot JP**, Caira JN, Pickering M. (2016). Diversity, phylogenetic relationships, and host associations of *Calliobothrium* and *Symcallio* (Cestoda: “Tetraphyllidea”) parasitizing triakid sharks. *Invertebrate Systematics*, 30:616–634. <https://doi.org/10.1071/IS15040>
- (1) **Bernot JP**, Caira JN, Pickering M. (2015). The dismantling of *Calliobothrium* (Cestoda: Tetraphyllidea) with erection of *Symcallio* n. gen. and description of two new species. *The Journal of Parasitology*, 101:167–181. <https://doi.org/10.1645/14-571.1>

GRANTS (*totaling \$298,800*)

- 2021 NSF Postdoc Research Fellowship (PRFB) supplemental 1-year COVID extension (\$69,000, 1 year)
- 2020 NSF Postdoc Research Fellowship (PRFB), Biological Collections. (\$207,000, 3 years)
https://www.nsf.gov/awardsearch/showAward?AWD_ID=2010898
- 2020 Smithsonian NMNH Peter Buck Postdoctoral Fellowship (\$130,000, 2 years, declined for 3 year
NSF PRFB).
- 2020 Cosmos Scholar. Cosmos Club Foundation. “Towards a phylogenomic framework for copepod diversity
and evolution.” (\$3,315)
- 2017 Edward and Phyllis Reed Fellowship for Copepod Research (Smithsonian NMNH). (\$8,500)
- 2017 George Washington University Knowledge in Action Career Internship Fund to spend a semester working
at the London Natural History Museum with Geoff Boxshall. (\$3,000)
- 2016 Society for Systematic Biology Mini Advancing Research in Taxonomy and Systematics Grant. (\$1,000)
- 2016 American Museum of Natural History Lerner-Gray Grant for Marine Research. (\$2,000)
- 2011 Paul L. Drotch Award in undergraduate Biology, University of Connecticut. (\$5,000)

AWARDS AND HONORS

- 2023 Ashton Cuckler New Investigator Award. American Society of Parasitologists. Kansas City, MO.
- 2018 American Genetics Association travel grant to attend Invertebrate Genomics Alliance Conference and
Workshop (GIGA III). Curacao.
- 2017 Outstanding student presentation award. 13th International Conference on Copepoda. Cabrillo Marine
Aquarium LA, USA.
- 2016 Honorable Mention, Best Student Presentation Helminthological Society of Washington.
- 2013 Best Student Presentation. New England Association of Parasitologists.
- 2012 Best Student Presentation. Helminthological Society of Washington.

MENTORSHIP

Primary Advisor

- 2021-present Felix Javier Berrios Ortega. PhD student (2024-present). Previously mentored as undergraduate at Universidad de Puerto Rico Humacao. Mentoring and proposal review for: NSFGRFP (awarded), Doris Dukes Conservation Scholars Fellowship (awarded); Ecological Society of America SEEDS Fellowship (award declined); Louis Stokes Alliance for Minority Participation PR-LSAMP (awarded); and three others.
- 2024-present Netanya Williams. Masters student. Teaching Assistant for Invertebrate Zoology (EEB 4275)
Fall 2024.
- 2025-present Douglas Stephan. PhD student.

Associate Advisor

- 2025-present Coral Diaz-Recio Lorenzo. Postdoctoral researcher on MSCA Seal of Excellence Postdoctoral Fellowship of Sorbonne Université (2-year €170,000). Coadvised with Didier Jollivet (CNRS-Sorbonne Université, France) and Kelly Speer (Northern Arizona University). Project: Coevolution of copepods and hydrothermal vent holobiomes.
- 2025-present PhD Committee Member: Mandy Game. UConn EEB 2023–2026 (anticipated).
- 2025-present PhD Committee Member: Sydney Horan.
- 2025-present Masters Committee Member: Rachel Levinson. UConn EEB 2025–2027 (anticipated).
- 2025-present Masters Committee Member: Crystal Zhu.
- 2024 Dissertation Examiner: Mark Stukel. UConn EEB 2024. “Phylogenomics and Evolution of Cicadidae: Insights from New Zealand and Across the Globe.”

Other mentoring:

- 2021-2023 Niklas Dreyer. Mentored as PhD student at Academia Sinica (Taiwan) studying Facetotecta diversity, later as postdoc at Harvard working on invertebrate phylogenomics. Mentoring on computational biology, phylogenomic pipelines, and genomics. Coauthors on Bernot et al. (2022) and Dreyer et al. (2025).
- 2019 Gabriella Rudy. George Washington University. Undergraduate student and Masters student in lab of John Hawdon. Advised on Project: Differential GPCR expression across life stages of the hookworm *Ancylostoma ceylanicum*. Coauthor on Bernot et al. (2020).
- 2018-19 Graduate student mentor in Columbian College of Arts and Sciences international graduate student buddy program. George Washington University.
- 2017-18 Chaimae Samtal. Visiting Fulbright PhD student at George Washington University from Sidi Mohamed Ben Abdellah University. Research project: Prostate cancer genetics in Moroccan men. Mentoring in genomics and computational biology.
- 2016-17 Edmund Cauley. Masters student at George Washington University. Mentoring in bioinformatics and genomics. Coauthor on Haskins et al. (2021).

Mentoring and Career Progression

- 2024 CIMER Mentoring Training. 8 hours of mentoring training through UConn Graduate School.
- 2024 Panel Member for "Expand Your Career Options: Postdoc Pathways". UConn Center for Career Development. March 21.
- 2022 Panel Member for "Career Conversations". Institute for Biomedical Sciences, GWU. Dec. 2.
- 2021 Panel member "Going to Graduate School" NMNH Natural History Research Experiences intern course (NSF REU). July 30.
- 2021 Panel member: "Career Conversations". Smithsonian NMNH Summer Internship Program. June 21
- 2018 Panel member for undergraduate Q&A on graduate school. GWU Nov. 18.

INVITED PRESENTATIONS

- 2025 Bernot JP. "Untangling the evolution of parasitic copepods with phylogenomics and advanced imaging methods" CUNY Hunter College Biology Department Seminar Series. Oct. 24, 2025
- 2025 Bernot JP. "Evolution of extreme life-style modifications in parasitic copepods and barnacles" University of Massachusetts, Lowell, Biology Department Seminar Series. Oct. 10, 2025
- 2025 Bernot JP. "Exploring parasitic copepod evolution with phylogenomic methods and advanced imaging" American Society of Parasitologists Annual Conference, President's Symposium. Winston-Salem NC. July 7, 2025.
- 2025 Bernot JP. "Extreme life-style modifications in parasitic copepods and barnacles: insights from advanced imaging and phylogenomics" UConn Avery Point, Marine Sciences Departmental Seminar Series. April 4, 2025.
- 2024 Bernot JP. "Copepod phylogenomics with a target-enrichment probe set for 100's of genes across all copepods" 15th International Conference on Copepoda, Hiroshima, Japan. June 3, 2024.
- 2023 Bernot JP. "Parasitic Copepod Evolution & Pancrustacean Phylogeny" University of Maryland Behavior, Ecology, Evolution, and Systematics Seminar Series. College Park, MA. Dec. 4, 2023.
- 2023 Bernot JP. "Parasitic Copepod Evolution & Crustacean-omics" UConn EEB Departmental Seminar Series. Feb. 20, 2023.
- 2022 Bernot JP. "Insights into the phylogeny and development of barnacles from the first stalked barnacle genome (*Pollicipes pollicipes*)" Smithsonian NMNH Invertebrate Zoology Departmental Seminar. Sept. 27, 2022.
- 2022 Bernot JP. "Parasitic Copepod Evolution" Senckenberg am Meer Research Colloquium. June 15, 2022.
- 2022 Bernot JP. "The Evolution of Parasitism in Copepods" Leibnitz Institute for the Analysis of Biodiversity Change Colloquium. Hamburg, Germany. March 28, 2022.

- 2022 Bernot JP. "The genome of the gooseneck barnacle (*Pollicipes pollicipes*) provides insights into the evolution and development of barnacles" Dovetail Genomics Genomes of Animals and Plants Conference (GAP 2022). Virtual. Feb. 16, 2022.
Talk available at: <https://vimeo.com/680523159>
- 2021 Bernot JP. "Parasite Evolution" Smithsonian NMNH All-Science meeting. Virtual. Sept. 8, 2021.
- 2021 Bernot JP. "Parasitology methods looking forward: genomics, phylogenomics, Iso-Seq, single-cell RNA-Seq, and spatial transcriptomics" American Society of Parasitologists Student Symposium. Virtual. July 27, 2021.
- 2021 Bernot JP. "Science Careers and Science Engagement" Rutgers Wildlife Society Student Chapter. Virtual. April 16, 2021
- 2021 Bernot JP. "New phylogenomic analyses of the Pancrustacea using tree-based orthology inference" Smithsonian NMNH PhyloPizza Seminar series. Virtual. March 23, 2021
- 2021 Bernot JP, Rudy, G. and Hawdon, J. M. "Towards the identification of host receptors in hookworm" California Academy of Sciences Genomics Social Hour. Virtual. Feb. 17, 2021.
[Talk available on YouTube](#).
- 2020 Bernot JP. "Copepod taxonomy and phylogeny and a new crustacean phylogenomic analysis" Smithsonian Environmental Research Center. Edgewater, MD, USA. Jan. 16, 2020.
- 2020 Bernot JP. "Surprising incongruity in crustacean phylogenomic analyses" Smithsonian NMNH Invertebrate Zoology Departmental Seminar. April 2020.
- 2019 Bernot JP. "Phylogenomics and genome size evolution: exploring the evolution of parasitism in copepods" James Madison University Department of Biology Seminar Series. Harrisonburg, VA, USA. Sept. 6, 2019.
- 2019 Bernot JP, Wyngaard GA, Boxshall GA, Crandall KC. "Parasitic copepods: diversity, phylogeny, and genome size evolution" The Crustacean Society. Evolution and Ecology of Parasitic and Symbiotic Crustaceans Symposium. Hong Kong. May 28, 2019.
- 2017 Bernot JP, Crandall KC, Boxshall GA. "Copepod phylogeny in the Open Tree of Life: estimating the number of transitions to parasitism" Smithsonian NMNH Invertebrate Zoology Departmental Seminar. Aug. 2017.
- 2017 Bernot JP, Crandall KC, Boxshall GA. "Towards a Synthetic Tree of the Copepoda" 13th International Conference on Copepoda. Los Angeles, USA. July 21, 2017.

CONFERENCE AND SEMINAR PRESENTATIONS

- 2023 Bernot JP, Boxshall GA. "Taxonomy, systematics, and new keys for *Caligus* (Copepoda: Caligidae) illuminated by confocal laser scanning microscopy". American Society of Parasitologists. Kansas City, MO. July 16, 2023.
- 2022 Bernot JP. "Multiple Evolutions of Parasitism in Copepods". 15th International Congress on Parasitology. Copenhagen, DK. Aug 24, 2022.
- 2022 Bernot JP. "The evolution of parasitism in copepods: phylogeny, diversity, and morphology". 5th International Conference on Invertebrate Morphology. Vienna, Austria. Aug 10, 2022.
- 2022 Bernot JP. "Towards an AHE probe set for copepod phylogenomics". International Conference on Copepoda virtual meeting. July 30, 2022.
- 2021 Bernot JP, Boxshall GA. "How many origins of parasitism in copepods? A new count with a review of the evidence from phylogenetics, morphology, and natural history" American Society of Parasitologists virtual meeting. July 26, 2021.
- 2020 Bernot JP, Owen CL, Olesen J, Crandall KA. "A new phylogeny of the Pancrustacea" American Society of Parasitologists "Parasite Hour" Virtual Conference. June 25, 2020.
- 2019 Bernot JP, Wyngaard GA, Boxshall GA, Crandall KC. "Copepod phylogenomics reveals surprising relationships in the broader Crustacea: insights, intrigue, and patterns of genome size evolution" American Society of Parasitologists. Rochester, MN. June 2019.

- 2018 Bernot JP, Crandall KC. "Copepod phylogenomics: orthology inference for target-capture marker development" Third Global Invertebrate Genomics Alliance Research Conference. Curaçao. Oct 2018.
- 2018 Bernot JP, and Crandall KC. "Get more from publicly available data: ortholog development for target-capture phylogenomics in copepods" American Society of Parasitologists. Cancun, Méx. June 2018.
- 2018 Bernot JP, Boxshall GA, Crandall KC. "Copepod phylogeny and systematics: the current state and future directions" 9th International Crustacean Congress. Washington, DC, USA. May 2018.
- 2017 Bernot JP, Crandall KC, Boxshall GA. "Copepod phylogeny in the Open Tree of Life: estimating the number of transitions to parasitism" Smithsonian NMNH Invertebrate Zoology Departmental Seminar. Aug. 2017.
- 2017 Bernot JP, Crandall KC, Boxshall GA. "Evolution of parasitism in copepods: a phylogenetic approach using the Open Tree of Life" American Society of Parasitologists. San Antonio, TX. July 2017.
- 2017 Bernot JP, Crandall KC. "The Open Tree of Life: integrations with WoRMS" WoRMS Host-Parasite Databasing Workshop. Flanders Marine Institute, Oostende, Belgium. April 2017.
- 2016 Bernot JP Boxshall GA. "A new species of *Pseudopandarus* (Copepoda: Siphonostomatoida; Pandaridae) from sharks of the genus *Squalus* in New Caledonian waters" International Workshop on Symbiotic Copepoda. James Cook University, Australia. July 2016.
- 2016 Bernot JP, Rosa BA, Mitreva M, Hawdon JM. "Utility of genomic and RNA-Seq data sets to identify putative host recognition receptors in hookworms" Helminthological Society of Washington. George Washington University, Washington, DC. April 2016.
- 2014 Bernot JP, Caira JN, Pickering-Villa M. "Calliobothrium (Cestoda: Tetraphyllidea) in *Mustelus* (Carcharhiniformes: Triakidae) of the Atlantic Ocean" American Society of Parasitologists. New Orleans, LA. July 2014.
- 2013 Bernot JP, Caira JN. "Site Specificity of Tapeworms of the genus *Calliobothrium* in the spiral intestine of Smoothhound Sharks (Carcharhiniformes: Triakidae)" American Society of Parasitologists. Quebec City, Canada. June 2013.
- 2013 Bernot JP, Caira JN. "Site Specificity of Tapeworms of the Genus in the Spiral Intestine of Smoothhound Sharks (Carcharhiniformes: Triakidae). New England Association of Parasitologists" Yale University. New Haven, CT. April 2013.
- 2012 Bernot JP, Caira JN, Pickering M. "David and Goliath: examination of additional complexity in the genus *Calliobothrium* (Cestoda: Tetraphyllidea) in smoothhound sharks of the genus *Mustelus* (Carcharhiniformes: Triakidae)" American Society of Parasitologists. Richmond, VA. July 2012.
- 2012 Bernot JP, Caira JN, Pickering M. "Cestode morphology as predicted by elasmobranch relationships: *Calliobothrium* in smooth hound sharks of the genus *Mustelus*" Helminthological Society of Washington. Quinnipiac University. Hamden, CT. April 2012.
- 2011 Bernot JP, Caira JN, Pickering M. "Cestode morphology as predicted by elasmobranch relationships: *Calliobothrium* in smooth hound sharks of the genus *Mustelus*" New England Association of Parasitologists. Salve Regina University. Newport, RI. Nov. 2011.
- 2011 Bernot JP, Caira JN, Pickering M. "Cestode morphology as predicted by elasmobranch relationships: *Calliobothrium* in smooth hound sharks of the genus *Mustelus*" 7th International Workshop on Cestode Systematics. University of Kansas. Lawrence, KS. July 2011.
- 2011 Bernot JP, Caira JN, Pickering M. "Cestode morphology as predicted by elasmobranch relationships: *Calliobothrium* in smooth hound sharks of the genus *Mustelus*" American Society of Parasitologists. Anchorage, AK. June 2011.

ADVISOR ON STUDENT CONFERENCE PRESENTATIONS

Superscripts ^{u,g} denote undergraduate and graduate student mentees, respectively

- 2025 Couto JV^g, **Bernot JP**, Boxshall GA, Paschoal P, Bisaggio Pereira F. An integrative analysis to resolve taxonomic deadlock in ergasilid copepods in the planet. 1st International Online Conference on Taxonomy. Nov 2025.
- 2025 Berrios Ortega FJ^g, Boxshall GA, **Bernot JP**. Building Tools for Copepod Systematics: Developing an Interactive Identification Key for *Lepeophtheirus* (Copepoda: Caligidae). International Workshop on Symbiotic Copepoda. Penang, Malaysia. Aug. 3, 2025.
- 2025 Williams N^g, Boxshall GA, **Bernot JP**. An exploration of the elongate body form of *Pseudotaeniacanthus*. International Workshop on Symbiotic Copepoda. Penang, Malaysia. Aug. 3, 2025.
- 2025 Berrios Ortega FJ^g, Boxshall GA, **Bernot JP**. Towards clarity in caligids: imaging and an interactive identification key for *Lepeophtheirus*. American Society of Parasitologists Annual Conference. Winston-Salem NC. July 8, 2025.
- 2025 Williams N^g, Boxshall GA, **Bernot JP**. Rethinking *Pseudotaeniacanthus* diversity: the elongated body form and its unusual attachment site. American Society of Parasitologists Annual Conference. Winston-Salem NC. July 7, 2025.

TEACHING EXPERIENCE

Instructor of record:

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| 2025 Fall | Systematic Biology (EEB 5347, graduate course) | University of Connecticut |
| 2024 Fall | Invertebrate Zoology (EEB 4275) | University of Connecticut |
| 2015 Spring | Current Topics in Ecology and Evolution (EEB 3894) | University of Connecticut |

Other courses taught:

- 2025 Organizer and instructor for [5th International Workshop on Symbiotic Copepoda](#). Center for Marine & Coastal Studies, Malaysia. August 2–9. Two Lectures: Introduction to Copepods, Copepods Parasitic on Invertebrates. Led 20 hours of lab activities on processing copepods from fish hosts and collecting and processing copepods from invertebrate hosts.
- 2023 Invited instructor for two-week NSF-funded [Meiofauna Diversity Workshop](#) at the University of Alabama Dauphin Island Research Lab. Lecture and lab activities on copepods.
- 2022 Designed and taught a seven-day practical introduction to computational biology focused on transcriptomic analysis in an HPC environment.
https://bitbucket.org/JBernot/senck_bioninformatics_workshop/src/master/
- 2017–2020 Designed and led bimonthly clinical research informatics training courses for REDCap (Research Electronic Data Capture) and ResearchMatch tools. George Washington University.
- 2020 Designed self-paced online REDCap [training](#) with automated registration, [tutorial videos](#), and online quiz for CTSI-CN: a partnership with Children's National Hospital and George Washington University.
- 2014 Dental Admissions Test Prep Course. University of Connecticut
Designed curriculum and led intensive 7-hour review sessions of Biological Science material on the Dental Admissions Test for undergraduates.
- 2013 Dental Admissions Test Prep Course. University of Connecticut

Lectures in other courses

- 2025 “Evolution of parasitic copepods and barnacles” in Marine Invertebrate Diversity and Evolution, Arizona State University.
- 2023 “Parasitic copepod evolution and crustacean-omics” in Invertebrate Zoology (graduate-level), Moscow State University.

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| 2020 | “My experience with parasites: a clinical trial for a hookworm vaccine” in Problematic Progress in Parasitology, Creighton University School of Medicine. |
| 2020 | “Crustacean diversity and current topics in crustacean research” in Animal Diversity, Meredith College, NC. |
| 2019 | “Biology and art in the description of species” in Biology and Art, James Madison University. |
| 2015 | “Genetic conflict and levels of selection” in Evolutionary Biology, University of Connecticut. |
| 2014 | “Multilevel Selection Theory” in Evolutionary Biology, University of Connecticut. |
| 2013 | “Opening a can of worms: tapeworms of elasmobranchs” in Topics in Modern Biology, University of Connecticut. |
| 2012 | “Opening a can of worms: my experience with parasites” in Topics in Modern Biology, University of Connecticut. |

Teaching pedagogy training

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| Fall 2024 | UConn Center for Excellence in Teaching and Learning voluntary consultation (3 sessions) |
| Fall 2024 | UConn EEB voluntary Peer Evaluation of Teaching |
| Fall 2019 | UNIV 0250 Graduate Teaching Assistantship Program (1 credit). George Washington University |
| Fall 2013 | EDCI 5830 Fundamentals of Teaching and Learning (3 credits). UConn. |
| Spring 2013 | EEB 5830 Teaching Methods (1 credit). UConn. |

MUSEUM AND COLLECTIONS EXPERIENCE

- Specimen identification, 19 new species descriptions, 25 redescriptions, evaluation of types, and deposition of type specimens. Deposited holotypes/neotypes of 20 species at the following museums (Smithsonian NMNH, NHM London, Queensland Museum, South African Museum Cape Town, Museum National d’Histoire Naturelle).
- Museum Appointments: NMNH Research Fellow (2015–present); NMNH Creative Council for Communications (2022); visiting postdoc NHM London (2022–2023); visiting predoc NHM London (2015, 2017)
- Scientific visitor at: NHM Denmark, NHM Geneva, CEFAS UK, STRI, Senckenberg, NHM Hamburg
- Collections management: inventory, organization, and identification of specimens (NMNH and UConn BRC)

Collection digitization and taxonomic databasing

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| 2022-present | World Registry of Marine Species (WoRMS) Steering Committee (elected, 2022–2025) |
| 2017-present | Taxonomic editor in WoRMS for Copepoda |
| 2015 | Prepared specimens and worked with MacroscopicSolutions to design an exhibit on tapeworms in the Connecticut State Natural History Museum. |
| 2012-16 | Contributed to the population of the Global Cestode Database as part of NSF PBI Nos. 0818696 and 0818823. Taxonomic authority on <i>Symcallio</i> and <i>Calliobothrium</i> . http://tapewormdb.uconn.edu |

Training in museum collections

- “Beyond Specimens” American Institute of Biological Sciences Meeting. Washington, DC. Dec. 19, 2019.
- “Introduction to Natural History Collections” 1 credit graduate seminar at UConn Biodiversity Research Collections. Invertebrate, and vertebrate specimen preservation, mounting/pining insects, and collections management. Spring 2015.

SCIENCE ENGAGEMENT AND OUTREACH

- 2020-present Social Media Coordinator for [World Association of Copepodologists](#). Manages Society Twitter account [@copepodology](#) and Facebook <https://www.facebook.com/Worldcopepodologists/>
- 2021-present Chaired Top 10 New Marine Species Committee 2022–present. Cowrote 5 articles for “Ten remarkable new marine species from [2020, 2021, 2022, 2023, 2024]” for Taxonomists Appreciation Day to draw public attention and press coverage to taxonomic research.
<https://marinespecies.org/worms-top-ten/2024/press-release>
<https://lifewatch.be/en/worms-top10-2023>
<https://lifewatch.be/en/worms-top10-2022>
<https://lifewatch.be/en/worms-top10-2021>
<https://lifewatch.be/en/worms-top10-2020>
- 2025 Featured in TED-Ed video on parasitic isopods: One of the animal kingdom’s strangest Relationships <https://ed.ted.com/lessons/let-us-ruin-your-day-with-this-tongue-eating-parasite-niko-zlotnik>
- 2025 Interviewed for UConn Today article on coauthored publication Dreyer et al. (2025).
<https://today.uconn.edu/2025/07/one-step-closer-to-solving-a-century-old-crustacean-mystery/>
- 2025 Hosting scientists and “head gear” horn and antler display for Connecticut State Museum of Natural History “Mega Mammal Day”. Met with >300 visitors.
- 2025 Science Dance Club Presentation. **Bernot JP** “Parasite Biology and Evolution”. Machine with Magnets, Pawtucket, RI. May 29, 2025.
- 2025 Interviewed in LiveScience article on deep sea parasites spotted in ROV footage:
<https://www.livescience.com/animals/fish/scientists-capture-footage-of-bizarre-deep-sea-creature-with-parasite-pig-tails>
- 2025 Research featured in Smithsonian Magazine article:
<https://www.smithsonianmag.com/science-nature/you-might-think-of-shrimp-as-bugs-of-the-sea-but-a-remarkable-discovery-shows-the-opposite-bugs-are-actually-shrimp-of-the-land-180986303/>
- 2025 Hosting scientists and invertebrate reef-builder display for UConn EEB and Connecticut State Museum of Natural History “Biodiversity Bonanza: Celebrating Natural History Collections at UConn” event. Met with >50 visitors to discuss reef building marine animals.
- 2024 Interviewed in LiveScience article on Gulper Eel parasites in ROV footage:
<https://www.livescience.com/animals/watch-bright-red-blood-sucking-parasite-feast-on-gulper-eel-in-rare-deep-sea-footage>
- 2022 Scientist host for Smithsonian NMNH White House Office of Science and Technology Policy Staff. Ocean Hall expert to talk with OSTP staff about NMNH research. Feb. 28, 2022.
- 2020-2022 Skype A Scientist. 16 virtual meetings with K-12 students at a variety of schools for marine biology lessons and Q&A:
4th graders at Hampstead Hill Academy, Baltimore, MD (3x/year 2020–2022)
12th graders at Staples High School, Westport, CT (2022)
K-12 at City of Sundown Public Library, Sundown, TX (2022)
5th graders at The Leffell School, White Plains, NY (2020)
Skype A Scientist LIVE Q&A on Marine Biology with >200 attendees on [Youtube](#) (2021)
- 2021 Interviewed for National Geographic article “Parasites may gross us out but they hold ecosystems together”. Oct 7. 2021. <https://www.nationalgeographic.com/animals/article/parasites-are-diverse-heres-why-they-matter>
- 2021 Panel discussion on [Exolore Podcast](#) season 2 [episode 9](#), a podcast featuring scientists discussing biology on extraterrestrial worlds. Aug. 27, 2021.

- 2021 Interviewed for The Atlantic article “The Mystery at the Base of One of Biology’s Strangest Relationships” July 14, 2021.
<https://www.theatlantic.com/science/archive/2021/07/tongue-biting-isopod/619430/>
- 2021 Interviewed for Sharkpedia podcast “[Shark Parasites with Dr. Jimmy Bernot](#)” July 5, 2021.
- 2021 Interviewed for PlanetB612 microscopy podcast “[Parasites with Jimmy Bernot](#)” June 22, 2021.
- 2021 Interviewed on Biocord Network on LQBTQ PRIDE in STEM. June 21, 2021.
Interview available on youtube:
https://www.youtube.com/watch?app=desktop&v=6yho_X3WXQY
- 2021 Interviewed for Undark/Slate article “In ‘Challenge Trials’ Participants Put Their Bodies on the Line”. April 9, 2021.
<https://slate.com/technology/2021/04/covid-19-challenge-trials-malaria-hookworms.html>
- 2021 Interviewed and supplied photographs for Snopes article on cymothoid isopods and fish tongue replacement. March 5, 2021.
<https://www.snopes.com/fact-check/parasite-fish-tongue-mouth/>
- 2021 Cowrote article “7 Ocean Parasites Worth Celebrating on World Parasite Day” on Smithsonian Ocean Portal website. March 2, 2021.
<https://ocean.si.edu/ocean-life/7-ocean-parasites-worth-celebrating-world-parasite-day>
- 2021 Smithsonian NMNH social media takeover for World Parasite Day. Wrote posts for Smithsonian NMNH Twitter, Instagram, and Facebook.
<https://twitter.com/NMNH/status/1366410398178578437?s=20>
- 2021 Zoom virtual meeting with 5th grade class for World Parasite Day. Mableton Elementary School, Mableton, GA. March 4, 2021.
- 2021 Podcast on copepod diversity with [Just the Zoo of Us](#) episode 86 – an animal diversity podcast. Feb. 24, 2021.
- 2021 Panel discussion on hermaphroditic life on [Exolore Podcast](#) season 1 [episode 23](#), a podcast featuring scientists, historians, psychologists that discuss biological and sociological implications of sci-fi worlds. Feb. 11, 2021.
- 2021 Interviewed on [LGBTQ+ STEMCast](#), a podcast featuring LGBTQ+ scientists. Jan 4, 2021.
- 2020 Authored blog post for [WeRepSTEM](#), a diversity in STEM blog.
<https://werepstem.com/2020/07/03/profile-james-jimmy-bernot-ph-d-candidate-in-genomics-bioinformatics-nsf-postdoc-research-fellow-in-biological-collections/>
- 2020 Presented on parasite biology to an auditorium of >70 8th graders for “World Parasite Day”. Imagine Foundations at Morningside Public Charter School. Prince George’s County, MD. March 6, 2020.
- 2020 Interviewed for [PhDetails](#) blog on graduate student life.
<http://phdetails.blogspot.com/2020/01/83-jimmy-bernot.html>
- 2019 Scientist representative for Smithsonian Natural History Museum “Congressional Science Night”. Invited by Smithsonian Department of Invertebrate Zoology to discuss science, research, and collections with members of Congress and staff at a special event for science engagement with Congress. July 17, 2019. <https://twitter.com/JimmyBernot/status/1151639577746169856>
- 2019 Guest speaker on parasite biology, research, and career options at Temple High School in Arizona on Parasite Day. Video call, presentation, and Q&A for 12th grade science classes x2. March 4, 2019.
- 2018 “Computational Biology” Discussed research in the Computational Biology Institute in Introduction to Medicine, a college-level course for high school students. George Washington University. July 3, 2018.
- 2018 Crustacean scientist, ocean hall Invertebrate Zoology Department public outreach. Crustacean specimen displays and Q&A. Smithsonian NMNH. April 5, 2018.
- 2017 Created figure for Science Magazine article *Biologists propose to sequence the DNA of all life on Earth*. <https://doi.org/10.1126/science.aal0824>

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| 2016 | Meet-a-scientist “Ocean Expert” for World Ocean Day at Smithsonian NMNH. “Copepods: what reefs eat, and what is eating them.” Topic included: food webs, invertebrate diversity, specimen display, Q&A. Smithsonian NMNH. June 8, 2016. |
| 2016 | Served as expert for live Q&A on parasites in Smithsonian “ScienceHow?” Webcast. Broadcast designed to meet middle school science curriculum. Online attendance >2,000 students. Smithsonian NMNH. May 19, 2016. |
| 2016 | On-camera interview for BBC documentary on CRISPR-CAS9 and research ethics. Washington University. Washington, DC. April 19, 2016. |
| 2015 | Interviewed for UConn Today article “Of Scholar and Tapeworms”. April 23, 2015. https://today.uconn.edu/2015/04/of-scholars-and-tapeworms |
| 2015 | Prepared specimens and worked with <u>MacroscopicSolutions</u> to design an exhibit on tapeworms in the Connecticut State Natural History Museum. |
| 2014 | Designed and presented a curriculum on parasites for 1 st and 4 th grade students. Franklin Elementary School Franklin, CT. |
| 2013 | Designed and presented a curriculum on parasites for 3 rd and 4 th grade students. Franklin Elementary School Franklin, CT. |

PROFESSIONAL SERVICE

Appointments:

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| 2023-present | Associate Editor, Journal of Parasitology |
| 2017-present | World Registry of Marine Species (WoRMS) Steering Committee (elected, 2023–2026) Taxonomic Editor for Copepoda (2017–present) Chair: WoRMS Top-10 New Marine Species Committee (2023, 2024) WoRMS Top-Ten New Marine Species Committee (2019–2022) WoRMS Image Working Group (2020) |
| 2025-present | Associate Editor: World Association of Copepodologists PeerJ Hub. |
| 2024-2025 | Associate Editor: Plankton and Benthos Research (special issue): Proceedings of the Fifteenth International Conference on Copepoda |
| 2021-2024 | Senate, Smithsonian National Museum of Natural History |
| 2017-2020 | REDCap system administrator and instructor. CTSI-CN: A Partnership between Children’s National Medical Center and GWU |

Departmental Service at UConn

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| 2025 | EEB Student Research Award Committee |
| 2014-2015 | Graduate student representative to Ecology & Evolutionary Biology faculty. University of Connecticut |
| 2015 | Graduate Student Symposium Committee. University of Connecticut |

Membership and service in professional societies:

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| 2011-present | American Society of Parasitologists Council Member-at-Large (elected, 2025–2029) Nomination and Tellers Committee (elected, 2021, 2022, 2023, 2024, 2025) Education Committee (appointed to 3-year term, 2021–2024) Student Awards Committee (appointed to 2-year term, 2023–2024) Included evaluating travel awards, student presentations, student posters. Local Organizing Committee, Baltimore Meeting (appointed, 2026 meeting) Committee on Diversity, Equity, and Inclusion (appointed, 2019–2020) Awards Committee (appointed, 2018, 2019, 2023) Resolutions Committee (appointed, 2018, 2019, 2023) |
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| 2017-present | The World Association of Copepodologists Executive Committee (elected to 2-year term, 2022–2024, 2024–2026) Founding Chair, Student Program Committee (2024-present) Founding Chair, Student Research Grant Committee (2023–present) Social Media Coordinator (2020–present) Twitter: @copepodology and Facebook World Association of Copepodologists PeerJ Hub Editor (2025-present) |
| 2024-present | Society of Systematic Biologists AIC Committee (2025–2027) DEI Committee (2024–2025) |
| 2016-2024 | Helminthological Society of Washington Executive Committee (appointed to 2-year term, 2022–2024) Student Research Grant Committee (2023) Committee for Underrepresented Minorities Research Awards (2021–2022) Diversity, Inclusion, and Discrimination Policies Committee (2021) |
| 2022 | International Conference on Copepoda (e-ICO) Steering Committee |
| 2016-present | Member AAAS |
| 2016-present | Member Society of Systematic Biologists |
| 2018-present | Member The Crustacean Society |
| 2018-present | Member Global Invertebrate Genomics Alliance (GIGA) |

Other professional service:

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| 2022-present | Smithsonian NMNH Creative Council (Public Affairs, Communications, and science advisory team for digital and social media and television) |
| 2021-2024 | Member: Smithsonian Pride Alliance |
| 2019 | Organized Ensembl Workshop “Browsing Genes and Genomes” at GWU. |
| 2018 | Contributed photos to <u>Operating a Successful Cryopreservation Facility</u> . James Bennet. 2018. Planer plc (Publisher) |
| 2016 | Institute for Biomedical Sciences Curriculum Committee. GWU June 2016 |
| 2012-2015 | Graduate Student Association. University of Connecticut. |

Reviewed 38 articles for 20 journals:

Acta Parasitologica, African Journal of Marine Science (x2), Cladistics, Communications Biology, Comparative Parasitology, Journal of Crustacean Biology (x3), Journal of Natural History, Marine Biology (x2), Molecular Biology and Evolution (x3), MDPI Diversity, Molecular Phylogenetics and Evolution (x5), Neotropical Biodiversity, Parasite, Parasitology Research (x2), PeerJ (x2), Plankton and Benthos Research (x2), PLOS ONE (x2), Scientific Reports, Systematic Parasitology (x4), The Biological Bulletin, Wellcome Open Research