JAMES P. BERNOT
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NSF Postdoctoral Research Fellow
Smithsonian National Museum of Natural History
Department of Invertebrate Zoology
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EDUCATION

2015-2020	**PhD Genomics and Bioinformatics** George Washington University Dissertation: Parasitic Copepod Evolution Advisor: Keith Crandall
2012–2015	**MS Ecology and 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 *summa cum laude* Thesis: On the Cestode Genus *Calliobothrium* and Their Triakid Shark Hosts Advisor: Janine Caira

PROFESSIONAL APPOINTMENTS

Aug. 2024	**Assistant Professor** Department of Ecology and Evolutionary Biology University of Connecticut, Storrs
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 Fellow** Smithsonian National Museum of Natural History
2015–2020	**Research Assistant** George Washington University. Clinical & Translational Science Institute informatics (CTSI-CN)
2017–2020	**Teaching Assistant** George Washington University. Parasitology
2012–2015	**Teaching Assistant** University of Connecticut. Animal Parasitology, Evolutionary Biology, General Ecology, Principles of Biology II

ACCESS TO RESEARCH DATA

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
Semantics Scholar	https://www.semanticscholar.org/author/James-P.-Bernot/47366584

PUBLICATIONS

** denotes undergraduate/graduate student mentee*

(18) **Bernot JP,** Boxshall GA Goetz FE, Phillips AJ. (*accepted*). MicroCT illuminates the unique morphology of Shiinoidae (Copepoda: Cyclopoida), an unusual group of fish parasites. *PeerJ*. 20 pages + 7 figures.

(17) Ismail N, Nishida Y, Ohtsuka S, Boxshall G, **Bernot JP.** (*accepted*). 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.*17 pages + 6 figures.

(16) Boxshall GA, **Bernot JP**. (2023). Resolving taxonomic and nomenclatural problems in the genus *Caligus* O.F. Müller, 1785 (Copepoda: Caligidae). *Zootaxa*. 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*. https://doi.org/10.1093/molbev/msad175

(14) Hawdon JM, **Bernot JP.** (2022). Teaching Parasitology Lab Remotely using Live Streaming. *The American Biology Teacher.* https://doi.org/10.1525/abt.2022.84.5.312

(13) **Bernot JP**, Avdeyev P, Zamyatin A, Alexeev N, Dreyer N*, Pérez-Losada M, Crandall KA. (2022). Chromosome-level genome assembly, annotation, and phylogenomics of the gooseneck barnacle *Pollicipes pollicipes*. *GigaScience*. 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*. https://doi.org/10.7717/peerj.12034

(11) Haskins IN, Wang B-D., **Bernot JP**, Cauley EC, 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*. https://doi.org/10.1016/j.surg.2021.03.031

(10) **Bernot JP**, Rudy 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.* 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.* https://doi.org/10.11646/zootaxa.4736.1.1

(8) Maynard T, Horvath A, **Bernot JP**, Karpinksi 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*. 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*. 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*. 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.* 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*. 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.
2019 Student Travel Award. 14th International Conference on Copepoda. Kruger National Park, South Africa.
2019 Student Travel Award. The American Society of Parasitologists Annual Meeting. Rochester, MN.
2019 Doctoral Student Travel Award. The Institute for Biomedical Sciences at George Washington University.
2019 Student Travel Award. The Crustacean Society mid-year meeting, Hong Kong.
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.
2017 Student Travel Award. The American Society of Parasitologists Annual Meeting. San Antonio, TX.
2016 Honorable Mention, Best Student Presentation Helminthological Society of Washington.
2014 Student Travel Award. The American Society of Parasitologists Annual Meeting. New Orleans, LA.
2013 Best Student Presentation. New England Association of Parasitologists.
2012 Best Student Presentation. Helminthological Society of Washington.

MENTORSHIP

2021-present	Niklas Dreyer. PhD student at Academia Sinica (Taiwan) studying facetotecan diversity and thecostracan genomics. Mentoring on bioinformatics and genomics. Proposal review for two postdoc fellowships. Coauthors on Bernot et al. (2022) and Dreyer et al. (*in prep*).
2021-present	Felix Berrios. Undergraduate at Universidad de Puerto Rico Humacao. General academic mentoring and reviewed proposals for: 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.
2019	Gabriella Ruby. George Washington University. Undergraduate student and Masters student in lab of John Hawdon. Project: Differential GPCR expression across life stages of the hookworm *Ancylostoma ceylanicum.* Coauthor on Bernot et al. (2020). Currently Bioinformatics Project Manager at QIAGEN.
2018-19	Graduate student mentor in Columbian College of Arts and Sciences international graduate student buddy program. George Washington University.
2017-18	Chaimae Samtal. George Washington University. Visiting Fulbright PhD student from Sidi Mohamed Ben Abdellah University. Research project: Prostate cancer genetics in Moroccan men. Mentoring in genomics and computational biology.

TEACHING EXPERIENCE

Instructor of record:

2015 Spring	Current Topics in Ecology and Evolution	University of Connecticut

Other courses taught:

2023	Invited instructor for two-week NSF-funded Meiofauna Diversity Workshop at the University of Alabama Dauphin Island Research Lab.
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_bioinformatics_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.
Feb. 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.
March 2013	Dental Admissions Test Prep Course. University of Connecticut

Teaching assistant:

2016–2020 Fall	Parasitology (laboratory)	George Washington University
2014, 2015 Spring	Evolutionary Biology	University of Connecticut
2014 Fall	Animal Parasitology (laboratory)	University of Connecticut
2013 Fall	General Ecology (discussion section)*	University of Connecticut
2013 Spring	Principles of Biology II (laboratory)	University of Connecticut
2012 Fall	Principles of Biology II (laboratory)	University of Connecticut

Duties for all courses included teaching, writing exams, and grading
**Designed new laboratory exercises*

Teaching pedagogy training

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.

Lectures in other courses

2023 "Parasitic copepod evolution and crustacean-omics" in Invertebrate Zoology (graduate-level), Moscow State University.
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

MUSEUM AND COLLECTIONS EXPERIENCE

- Specimen identification, new species descriptions, redescriptions, evaluation of types, and deposition of type specimens. Deposited holotypes/neotypes of 8 species at the following museums (NMNH, NHMUK, Queensland Museum, South African Museum Cape Town, Museum National d'Histoire Naturelle). Deposited hologenophore and paragenophore in NMNH of first gooseneck barnacle genome (*Pollicipes pollicipes*).
- Museum Appointments: NMNH Research Fellow (2015+); NMNH Creative Council for Communications (2022); visiting predoc NHMUK (2015, 2017)
- Scientific visitor at: NHM Denmark, NHM Geneva, NHMUK, CEFAS UK, STRI
- Collections management: organization and inventory of specimens (NMNH and UConn)

Collection digitization and taxonomic databasing

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 *Symcallio* and *Calliobothrium*. http://tapewormdb.uconn.edu

Advanced 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.
- "The International Code of Zoological Nomenclature" 1 credit graduate seminar at UConn. Spring 2013.

INVITED PRESENTATIONS

2023 Bernot, J. P. "Parasitic Copepod Evolution & Pancrustacean Phylogeny" University of Maryland Behavior, Ecology, Evolution, and Systematics Seminar Series. College Park, MA. Dec. 4, 2023.

2022 Bernot, J. P. “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, J. P. “Parasitic Copepod Evolution” Senckenberg am Meer Research Colloquium. June 15, 2022.

2022 Bernot, J. P. “The Evolution of Parasitism in Copepods” Leibnitz Institute for the Analysis of Biodiversity Change Colloquium. Hamburg, Germany. March 28, 2022.

2022 Bernot, J. P. “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, J. P. “Parasite Evolution” Smithsonian NMNH All-Science meeting. Virtual. Sept 8, 2021.

2021 Bernot, J. P. “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, J. P. “Science Careers and Science Engagement” Rutgers Wildlife Society Student Chapter. Virtual. April 16, 2021

2021 Bernot, J. P. “New phylogenomic analyses of the Pancrustacea using tree-based orthology inference” Smithsonian NMNH PhyloPizza Seminar series. Virtual. March 23, 2021

2021 Bernot, J. P., 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, J. P. “Copepod taxonomy and phylogeny and a new crustacean phylogenomic analysis” Smithsonian Environmental Research Center. Edgewater, MD, USA. Jan 16, 2020.

2019 Bernot, J. P. “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, J. P., Wyngaard, G. A., Boxshall, G. A., and Crandall, K. C. “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, J. P., Crandall, K. C., and Boxshall, G. A. “Towards a Synthetic Tree of the Copepoda” 13th International Conference on Copepoda. LA, USA. July 21, 2017.

CONFERENCE AND SEMINAR PRESENTATIONS

2023 Bernot JP and 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, J. P. “Multiple Evolutions of Parasitism in Copepods”. 15th International Congress on Parasitology. Copenhagen, DK. Aug 24, 2022.

2022 Bernot, J. P. “The evolution of parasitism in copepods: phylogeny, diversity, and morphology”. 5th International Conference on Invertebrate Morphology. Vienna, Austria. Aug 10, 2022.

2022 Bernot, J. P. “Towards an AHE probe set for copepod phylogenomics”. International Conference on Copepoda virtual meeting. July 30, 2022.

2021 Bernot, J. P. and Boxshall, G. A. “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, J. P., Owen, C. L., Olesen, J., and Crandall, K. A. “A new phylogeny of the Pancrustacea” American Society of Parasitologists “Parasite Hour” Virtual Conference. June 25, 2020.

2020 Bernot, J. P. “Surprising incongruity in crustacean phylogenomic analyses” Smithsonian NMNH Invertebrate Zoology Departmental Seminar. April 2020.

2019 Bernot, J. P., Wyngaard, G. A., Boxshall, G. A., and Crandall, K. C. "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, J. P. and Crandall, K. C. "Copepod phylogenomics: orthology inference for target-capture marker development" Third Global Invertebrate Genomics Alliance Research Conference. Curaçao. Oct 2018.

2018 Bernot, J. P. and Crandall, K. C. "Get more from publicly available data: ortholog development for target-capture phylogenomics in copepods" American Society of Parasitologists. Cancun, Méx. June 2018.

2018 Bernot, J. P., Boxshall, G. A., and Crandall, K. C. "Copepod phylogeny and systematics: the current state and future directions" 9th International Crustacean Congress. Washington, DC, USA. May 2018.

2017 Bernot, J. P., Crandall, K. C., and Boxshall, G. A. "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, J. P., Crandall, K. C., and Boxshall, G. A. "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, J. P. and Crandall, K. C. "The Open Tree of Life: integrations with WoRMS" WoRMS Host-Parasite Databasing Workshop. Flanders Marine Institute, Oostende, Belgium. April 2017.

2016 Bernot, J. P. and Boxshall, G. A. "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, J. P., Rosa, B. A., Mitreva, M., and Hawdon, J. M. "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, J. P., Caira, J. N., and 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, J. P. and Caira, J. N. "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, J. P. and Caira, J. N. "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, J. P., Caira, J. N., and 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, J. P., Caira, J. N., and 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, J. P., Caira, J. N., and 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, J. P., Caira, J. N., and 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, J. P., Caira, J. N., and 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.

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/

2020-present 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 (3/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 and introduction to marine plankton and parasites with >200 attendees. March 2021. Available on Youtube.

2021-present Cowrote 3 WoRMS articles for "Ten remarkable new marine species from [2020, 2021, and 2022]" for Taxonomists Appreciation Day to draw public attention and press coverage to taxonomic research. Chaired Top 10 New Marine Species Committee in 2022.
https://lifewatch.be/en/worms-top10-2022
https://lifewatch.be/en/worms-top10-2021
https://lifewatch.be/en/worms-top10-2020
Videos at: https://youtu.be/mwFdbec5k8s

2022 Invited Panel Member for Career Conversations. Institute for Biomedical Sciences, George Washington University. Dec. 2, 2022

2022 Science ambassador 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.

2021 Interview 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 Panel member "Going to Graduate School" NMNH Natural History Research Experiences intern course (NSF REU). July 30, 2021.

2021 Interview 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 Interview for Sharkpedia podcast "Shark Parasites with Dr. Jimmy Bernot" July 5, 2021.

2021 Interview for PlanetB612 microscopy podcast "Parasites with Jimmy Bernot" June 22, 2021.

2021 Interview 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 Panel member "Career Conversations" NMNH Education and Outreach Volunteer Experience. June 21, 2021.

2021 Interview 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 Interview 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 Interview 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 Interview 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 Contributed a figure to Science Magazine article *Biologists propose to sequence the DNA of all life on Earth*. https://doi.org/10.1126/science.aal0824

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 Interview 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 MacroscopicSolutions to design an exhibit on tapeworms in the Connecticut State Natural History Museum.

2014 Designed and presented a curriculum on parasites for 1st and 4th grade students. Franklin Elementary School Franklin, CT.

2013 Designed and presented a curriculum on parasites for 3rd and 4th grade students. Franklin Elementary School Franklin, CT.

2011 Consulted with Janine Caira and Kirsten Jensen in designing a children's book on tapeworms, Meet the Suckers as part of NSF PBI No. 0818823. University of Connecticut.

PROFESSIONAL SERVICE

Appointments:

2023-present Associated Editor, Journal of Parasitology

2017-present World Registry of Marine Species (WoRMS)
- Steering Committee (elected, 2022–2025)
- 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)

2021-present 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

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:

2011-present American Society of Parasitologists
- Nomination and Tellers Committee (elected, 2021, 2022, 2023)
- Education Committee (appointed to 3-year term, 2021–2024)
- Student Awards Committee (appointed to 2-year term, 2023–2024)
- Local Organizing Committee, Baltimore Meeting (appointed, 2026 meeting)
- Committee on Diversity, Equity, and Inclusion (appointed, 2019)
- Awards Committee (appointed, 2018, 2019, 2023)
- Resolutions Committee (appointed, 2018, 2019, 2023)

2016-2024 Helminthological Society of Washington
- Executive Committee (appointed, 2022–2024)
- Student Research Grant Committee (2023)
- Committee for Underrepresented Minorities Research Awards (2021–2022)
- Diversity, Inclusion, and Discrimination Policies Committee (2021)

2017-present The World Association of Copepodologists
- Executive Committee (elected, 2022–2024)
- Founding Member and Chair of Student Research Grant Committee (2023–present)
- Social Media Coordinator (2020–present) Twitter: @copepodology and Facebook

2022 International Conference on Copepoda (e-ICOC) Steering Committee

2016-present AAAS

2016-present Society of Systematic Biologists

2018-present The Crustacean Society

2018-present Global Invertebrate Genomics Alliance (GIGA)

Other professional service:

2022-present Smithsonian NMNH Creative Council (Public Affairs, Communications, and science advisory team for digital and social media and television)

2021-present Member: Smithsonian Pride Alliance

2021 Panel member: "Career Conversations" with Smithsonian NMNH summer interns. June 21, 2021

2019 Organized Ensembl Workshop "Browsing Genes and Genomes" at GWU.

2018 Contributed photos to Operating a Successful Cryopreservation Facility. James Bennet. 2018. Planer plc (Publisher)

2018 Panel member for undergraduate Q&A on graduate school and research. GWU Nov. 2018

2016 Institute for Biomedical Sciences Curriculum Committee. GWU June 2016

2012-2015 Graduate Student Association. University of Connecticut.

Reviewed 29 articles for 19 journals:
Acta Parasitologica, African Journal of Marine Science (x2), Communications Biology, Comparative Parasitology, Journal of Crustacean Biology (x2), Journal of Natural History, Marine Biology, Molecular Biology and Evolution, MDPI Diversity, Molecular Phylogenetics and Evolution (x3), Neotropical Biodiversity, Parasite, Parasitology Research (x2), PeerJ (x2), PLOSONE (x2), Scientific Reports, Systematic Parasitology (x4), The Biological Bulletin, Wellcome Open Research

FIELD WORK EXPERIENCE

Collections made with local collaborators, permits and ethical use of animal regulations followed, holotypes deposited in country of origin.

Oct. 2018	Panama: 10-day survey of parasitic copepods of reefs in Coiba National Park with Smithsonian Tropical Research Institute. Collaborator: Matthieu Leray (STRI)
Aug. 2018	New York: 2-week survey of freshwater planktonic and parasitic copepods. SUNY Oneonta Biological Field Station. Collaborator: Florian Reyda (SUNY Oneonta)
June 2016	Australia: 2-week survey of commercial fish parasites as part of ABRS grant (PI Tom Cribb, University of Queensland). Fish collection (spear fishing and line and reel), fish dissection, parasite identification. Collaborator: Tom Cribb (University of Queensland)
May 2014	Connecticut: survey of shark tapeworms of Long Island Sound, CT, USA. Collaborators: Janine Caira (UConn) and Long Island Sound Trawl Survey
Aug. 2013	United Kingdom: 10-day collection of tapeworms of sharks and rays off the coast of Lowestoft, England. Collaborator: Jim Ellis (CEFAS)
Jan. 2013	Chile: 3-week collection of tapeworms of sharks and rays off of central Chilean coastline. Collaborator: Francisco Concha (Universidad de Valparaiso)
May 2012	Peru: SUNY Oneonta Tropical Field Biology Course in Manu National Park. Invertebrate diversity bio-blitz and leaf cutter ant field experiments.

ADVANCED TRAINING AND WORKSHOPS

2016	Workshop on Molecular Evolution. University of Chicago Marine Biological Laboratory. Woods Hole, MA.
2016	Smithsonian Target Enrichment/Bait Capture Workshop. Smithsonian Museum of Natural History. Washington, DC.
2016	3rd International Workshop on symbiotic Copepoda. Heron Island, Australia.
2016	OVPR Grant Writing Workshop: Keys to Successful Grant Writing. George Washington University. Washington, DC.
2015	Practical Computing for Biologists. University of Washington. Friday Harbor Labs. Friday Harbor, WA.
2014	International Workshop on Cestode Systematics and Phylogeny. Universidade de São Paulo. Sao Sebastiao, Brazil.
2011	International Workshop on Cestode Systematics. University of Kansas. Lawrence, KS.

PROGRAMMING LANGUAGES

Python, R, Bash

PROFESSIONAL CONTACTS

Dr. Keith Crandall
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