

# PAUL H. DUNN

# CURRICULUM VITAE

Assistant Professor, Department of Biology  
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## **Education:**

- 2011. Ph.D. in Biology, University of Oregon
  - Dissertation: *Estuarine Ecology and Larval Biology of the Nemertean Egg Predator Carcinonemertes errans on the Dungeness Crab*, Cancer magister
- 2006. B.S. in Integrative Biology, *magna cum laude*, Brigham Young University

## **Employment:**

- 2018-present. Assistant Professor, Utah Valley University, Orem, Utah
- 2015-2018. Assistant Professor, Armstrong State University/Georgia Southern University, Savannah, Georgia
- 2013-2015. Post-Doctoral Fellow, Max-Planck Odense Center on the Biodemography of Aging, Institute of Biology, University of Southern Denmark
- 2011-2013. Post-Doctoral Fellow, Laboratory of Evolutionary Biodemography, Max Planck Institute for Demographic Research, Germany

## **Teaching Experience:**

- 2020-2021. Instructor of record, *Marine Biology*, Utah Valley University
- 2019-2021. Instructor of record, *Parasitology*, Utah Valley University
- 2019-2021. Instructor of record, *College Biology II*, Utah Valley University
- 2018-2021. Instructor of record, *General Ecology*, Utah Valley University
- 2018-2021. Instructor of record, *Invertebrate Zoology*, Utah Valley University
- 2017-2018. Instructor of record, *Parasitology*, Armstrong State University
- 2016-2017. Instructor of record, *Invertebrate Zoology*, Armstrong State University
- 2015-2018. Instructor of record, *Principles of Biology II*, Armstrong State University
- 2015. Instructor of record, *Principles of Biology I*, Armstrong State University
- 2014-2015. Co-Instructor of record, *Field Course in Terrestrial Zoology*, University of Southern Denmark
- 2013-2015. Co-Instructor, *Zoology and Evolution*, University of Southern Denmark
- 2013-2014. Co-Advisor, *Undergraduate Research Project*, University of Southern Denmark
- 2011. Teaching Assistant, *Adaptations of Marine Animals*, University of Oregon
- 2010. Teaching Assistant, *Comparative Embryology and Larval Biology*, University of Oregon
- 2009-2010. Teaching Assistant, *Estuarine Biology*, University of Oregon

- 2006-2009. Elementary Science Instructor, North Bend School District
  - Graduate STEM Fellows in K-12 Education, National Science Foundation
- 2005-2006. Teaching Assistant, *Introduction to Marine Biology*, Brigham Young University
- 2005-2006. Teaching Assistant & Laboratory Instructor, *Animal Diversity*, Brigham Young University
- 2005-2006. Teaching Assistant, *Development of Marine Animals*, Brigham Young University
- 2005-2006. Teaching Assistant, *Marine Ecology*, Brigham Young University

**Publications (\* indicates undergraduate co-author):**

- **Dunn, P. H.**, B. N. Fitzgerald\*, and M. C. Freeman\*. 2021. The Importance of Transitions for Hatching Success and Brood Mortality in the Barnacle *Chthamalus fragilis* under Laboratory Conditions. *Hydrobiologia*. <https://doi.org/10.1007/s10750-021-04677-9>
- **Dunn, P. H.**, V. Zarulli, and D. A. Levitis. 2016. Beyond predation and offshore transport: ontogenetic transitions drive developmental mortality in marine larvae. *Marine Ecology Progress Series* 559:103-116. <https://doi.org/10.3354/meps11889>
- **Dunn, P. H.** and C. M. Young. 2015. Salinity and Temperature Tolerance of the Nemertean Worm *Carcinonemertes errans*, an Egg Predator of the Dungeness Crab. *Biological Bulletin* 228:163-169. <https://doi.org/10.1086/BBLv228n2p163>
- Olsen, T. B. O.\*, F. E. G. Christensen\*, K. Lundgreen, **P. H. Dunn**, and D. A. Levitis. 2015. Coelomic Transport and Clearance of Durable Foreign Bodies by sea stars (*Asterias rubens*). *Biological Bulletin* 228:156-162. <https://doi.org/10.1086/BBLv228n2p156>
- **Dunn, P. H.** and C. M. Young. 2014. Larval Settlement of the Nemertean Egg Predator *Carcinonemertes errans* on the Dungeness Crab, *Metacarcinus magister*. *Invertebrate Biology* 133(3):201-212. <https://doi.org/10.1111/ivb.12059>
- **Dunn, P. H.** and C. M. Young. 2013. Finding Refuge: The Estuarine Distribution of the Nemertean Egg Predator *Carcinonemertes errans* on the Dungeness Crab, *Cancer magister*. *Estuarine, Coastal, and Shelf Science* 135:201-208. <https://doi.org/10.1016/j.ecss.2013.10.012>
- **Dunn, P. H.** and A. Shanks. 2012. Mating Success of Female Dungeness Crabs (*Cancer magister*) in Oregon Coastal Waters. *Journal of Shellfish Research* 31(3):835-839. <https://doi.org/10.2983/035.031.0330>
- **Dunn, P. H.** and T.M. Davidson. 2009. One Fish, Two Fish: Balancing Economy with Ecology as a Fishery Manager. *Science Activities* 46(4): 31-34. <https://doi.org/10.3200/SATS.46.4.31-34>

**Manuscripts in Preparation (\* indicates undergraduate co-author):**

- **Dunn, P. H.**, K. Lundgreen, and D. A. Levitis. (in prep) Growth and survival of the breadcrumb sponge *Halichondria panacea* in a Danish fjord.

### Book & Lab Manual Chapters:

- Craven, K. and **P. H. Dunn**. 2016. *An introduction to the animals: early animal development and three basal phyla*. In: Investigations in Biology II Laboratory Manual, 9<sup>th</sup> & 10<sup>th</sup> Edition. Pp. 213-242. Department of Biology, Armstrong State University. Haden-McNeil.
- Craven, K., **P. H. Dunn**, and J. Zettler. 2016. *Lophotrochozoans*. In: Investigations in Biology II Laboratory Manual, 9<sup>th</sup> & 10<sup>th</sup> Edition. Pp. 243-286. Department of Biology, Armstrong State University. Haden-McNeil.
- Craven, K., **P. H. Dunn**, and M. Cutwa. 2016. *The Deuterostomes*. In: Investigations in Biology II Laboratory Manual, 9<sup>th</sup> & 10<sup>th</sup> Edition. Pp. 317-348. Department of Biology, Armstrong State University. Haden-McNeil.

### Presentations (\* indicates undergraduate co-author):

- Allgaier, T.\*, E. Duke\*, M. Green\*, J. Jones, C. Shirts\*, J. Wasden\*, and **P. H. Dunn**. (February 2021). *Can Little Changes Kill You? Using Great Salt Lake Brine Shrimp to Examine Developmental Mortality*. Poster presented at Utah Conference on Undergraduate Research Meeting, Brigham Young University.
- Johnson, M.\*, K. Abunuwara, **P. H. Dunn**, and A. Oliveira. (March 2020). *Using cultural tools to preserve biodiversity and mitigate species conflict in the United States*. Paper accepted at National Conference on Undergraduate Research Meeting, Montana State University. \*\*Meeting cancelled due to COVID-19 Pandemic\*\*.
- Adams, H.\*, T. Allgaier\*, E. Duke\*, A. Jackson\*, J. Jones, G. Matthews\*, C. Shirts\*, R. Soni\*, J. Wasden\*, and **P. H. Dunn**. (March 2020). *Can Little Changes Kill You? Using Great Salt Lake Brine Shrimp to Examine Developmental Mortality*. Poster accepted at Utah Academy of Sciences, Arts, and Letters Meeting, University of Utah. \*\*Meeting cancelled due to COVID-19 Pandemic\*\*.
- Jackson, A.\*, G. Matthews\*, R. Soni\*, J. Wasden\*, and **P. H. Dunn**. (September 2019). *Investigation of Ontogenescence through Artemia Molting*. Poster presented at UVU Showcase, Utah Valley University.
- Richard, K.\*, J. Pham\*, J. Brofft Bailey, M. E. Frischer, and **P. H. Dunn**. (May 2018). *Hematodinium in Georgia: Where are we today?* Paper presented at International Crustacean Congress (ICC 9), Washington, D.C.
- Pham, J.\*, K. Richard\*, K. Wong\*, B. Davis\*, **P. H. Dunn**, and J. Brofft Bailey. (April 2018). *Survey of Local Blue Crabs for Hematodinium Incidence*. Poster presented at Student Scholar Symposium, Georgia Southern University.
- Moore, J.\* and **P. H. Dunn**. (April 2018). *Limiting extrinsic mortality and discovering sources on ontogenescence in the brine shrimp Artemia salina*. Poster presented at Student Scholar Symposium, Georgia Southern University.
- Fitzgerald, B.\*, M. C. Freeman\*, and **P. H. Dunn**. (March 2018). *Investigating causes of ontogenescence by examining barnacle hatching success*. Paper presented at the Association of Southeastern Biologists Meeting, Myrtle Beach, South Carolina.
- Fitzgerald, B.\*, M. C. Freeman\*, and **P. H. Dunn**. (April 2017). *Investigating Causes of Ontogenescence by Examining Barnacle Hatching Success*. Poster presented at Student Scholar Symposium, Armstrong State University.

- Richard, K.\*, J. Pham\*, J. Brofft Bailey, and **P. H. Dunn**. (April 2017). *Survey of Local Blue Crabs for Hematodinium Incidence*. Poster presented at Student Scholar Symposium, Armstrong State University.
- Levitis, D. A. and **P. H. Dunn**. (October 2013). *A proxy-based hypothesis regarding the evolutionary history of metazoan senescence*. Paper and poster presented at the Evolutionary Demography Society Meeting, Odense, Denmark.
- Kumala, L., **P. H. Dunn**, and D. A. Levitis. (October 2013). *Biodemography of aging in sponges: How can age be determined?* Poster presented at the Evolutionary Demography Society Meeting, Odense, Denmark.
- **Dunn, P. H.** and D. A. Levitis. (October 2013). *Ontogenescence in the Estuarine Barnacle Amphibalanus improvisus*. Paper and poster presented at the Evolutionary Demography Society Meeting, Odense, Denmark.
- **Dunn, P. H.** and D. A. Levitis. (August 2013). *Ontogenescence and the Barnacle: an experimental examination of early life mortality in the estuarine barnacle Amphibalanus improvisus*. Paper presented at the Congress of the European Society for Evolutionary Biology, Lisbon, Portugal.
- **Dunn, P. H.**, (October 2012). *Early Life History Bottlenecks: How Thinking Holistically Helps to Understand Extinction*. Paper presented at the Agouon Institute Meeting on Early Animal Life, Washington, D.C.
- **Dunn, P. H.** (July 2012). *Larval Settlement of the Nemertean Egg Predator Carcinonemertes errans*. Paper presented at the First Joint Congress on Evolutionary Biology, Ottawa, Canada.
- **Dunn, P. H.** and A. L. Shanks. (June 2012). *Mating Success of Female Dungeness Crabs in Oregon Coastal Waters*. Paper presented at the Crustacean Society Summer Meeting, Athens, Greece.
- **Dunn, P. H.** (January 2011). *Finding Refuge: Factors influencing the estuarine distribution of the egg predator Carcinonemertes errans on its crab host, Cancer magister*. Paper presented at the meeting for the Society for Integrative & Comparative Biology (SICB), Salt Lake City, UT.
- **Dunn, P. H.** (July 2009). *Estuarine ecology of the nemertean egg predator Carcinonemertes errans on the Dungeness crab, Cancer magister*. Paper presented at the 7<sup>th</sup> International Conference on Nemertean Biology, Santa Barbara, CA.
- **Dunn, P. H.** and C. M. Young. (March 2009). *Estuarine ecology of the nemertean egg predator Carcinonemertes errans on the Dungeness crab, Cancer magister*. Poster presented at the National Science Foundation's Graduate STEM Fellows in K-12 Education national convention, Washington, D.C.

### **Invited Seminar Talks:**

- **Dunn, P. H.** (November 2018). *Change Can Kill: What Crustaceans Can Teach Us About Dying Young*. Biology Seminar Series. Utah Valley University.
- **Dunn, P. H.** (September 2017). *Change Can Kill: What Barnacles Can Teach Us About Dying Young*. Robert I. Strozier Faculty Lecture Series. Armstrong State University.
- **Dunn, P. H.** (February 2017). *Change Can Kill: Developmental Transitions Drive Mortality in Barnacle Larvae*. Biology Seminar Series. Armstrong State University.

- **Dunn, P. H.** (November 2016). *Change Can Kill: Developmental Transitions Drive Mortality in Barnacle Larvae*. Seminar talk. University of South Carolina, Beaufort.
- **Dunn, P. H.** (February 2015). *Parasites, Dying Young, and Other Pleasant Topics*. Seminar talk. Armstrong State University.

### Mentoring:

- Currently mentoring **seven undergraduate students** at UVU working on
  - 1) Developmental mortality in the brine shrimp *Artemia* from the Great Salt Lake and
  - 2) The ecology of invasive crayfish in Utah's waterways.
- Member of thesis committee for **three current and former UVU students**:
  - Jarod Meecham
  - William Bradshaw
  - Marian Johnson
- Mentor to **nine UVU students who have graduated**. Four have been accepted to either dental or medical schools, one is a nurse, and the others are either preparing for graduate school or working with their biology degrees (e.g. DWR)
- Mentor to **one UCAS high school student** who did research in my lab 2020-2021
- Mentor to **eight undergraduate students at Armstrong/Georgia Southern University**. Four of these former advisees are now pursuing studies in graduate school (biology) or professional school (physician's assistant), and two are biology teachers
- Co-mentor for **three undergraduate students at University of Southern Denmark**

### Grants & Other Funding:

- 2021. COS Scholarly Activities Committee (SAC) Student Grant. Lead Student: Jenna Moulton. Project: Sampling for Invasive Crayfish Species in Salem Pond.
  - \$1969 for equipment and travel
- 2020. COS Scholarly Activities Committee (SAC) Student Grant. Lead Student: Tanner Allgaier. Project: The Timing of Developmental Mortality in Brine Shrimp.
  - \$1,106 for equipment
- 2020. COS Scholarly Activities Committee (SAC) Student Grant. Lead Student: Hannah Adams. Project: Travel to Utah Academy of Sciences, Arts, and Letters Conference
  - \$178 for travel
- 2020. Western North American Naturalist Symposium Grant
  - \$5000 for hosting symposium
- 2018. USDA NIFA Aquaculture Research Grant (co-PI with Heather Joesting). Project: Increasing the Sustainability of Aquaponics through the Integration of Red Claw Crawfish.
  - \$119,190; NOT funded
- 2017. Undergraduate Research Grant. Lead Student: Jessica Pham. Project: Survey of Local Blue Crab *Hematodinium* Incidence.
  - \$161 for equipment and supplies

- 2015. Armstrong Research & Scholarship Grant
  - \$1968.38 for equipment
- 2012. Carlsberg Foundation Research Grant (co-PI with Dr. Hans Ulrik Riisgård, University of Southern Denmark)
  - 275,000 DKK (\$51,000) for equipment
- 2008. Oregon Dungeness Crab Commission Research Grant
  - \$1000 for equipment and travel
- 2010-2011. Administrative Graduate Teaching Fellow, University of Oregon
  - Full-tuition plus \$18,000 yearly stipend
- 2009-2010. Graduate Teaching Fellow, University of Oregon
  - Full-tuition plus \$18,000 yearly stipend
- 2006-2009. Graduate Teaching Fellow in K-12 Education, National Science Foundation
  - Full-tuition plus \$30,000 yearly stipend
- 2000-2006. Gordon B. Hinckley Scholarship, Brigham Young University
  - Full-tuition plus \$2000 yearly stipend

**Service Activities:**

- Service to Department, College, & University
  - 2021-present. Co-chair Biology Department Curriculum Committee
  - 2020-present. Member of ad-hoc committee to develop Zoology program
  - 2020-2021. Search Committee Chair for Tenure-track Evolutionary Biologist
  - 2019-2020. Search Committee for Tenure-track Bioinformatics/Genomics position
  - 2019-present. Biology Representative on University Scholarly and Creative Activities Committee (SCAC)
  - 2019. Judge for UVU Showcase Poster Presentations
  - 2019. Biology Presenter for UVU's Native American Summit
  - 2019. Search Committee for Limited-term Lecturer position
  - 2019. Search Committee for Tenure-track Physiologist
  - 2018-present. Regular at booths for Dean's Day, Department Day, Darwin Day, and Sustainability Day
  - 2018-present. Member Biology Department Strategic Planning Committee
  - 2018-present. Member Biology Department Curriculum Committee
  - 2018. Biology Presenter for UVU's IamFirst Program
  - 2017-2018. Coordinator for Armstrong Bee Project
  - 2017-2018. Search Committee for Tenure-track Aquaponics/Fisheries Biologist
  - 2015-2018. BIOL 1108L Curriculum Committee
  - 2016-2017. Search Committee for Administrative Assistant for Biology Department
  - 2016-2017. Biology Department Faculty Success Committee
  - 2015-2016. USG STEM Initiative Committee
  - 2015-2016. Ad hoc committee for the improvement of the Marine Track at Armstrong

- Service to the Profession & Community
  - 2021-present. Guest editor for special edition of Western North American Naturalist
  - 2020-present. Reviewer for Macmillan Learning (Ecology & General Biology textbooks and online learning tools)
  - 2020-2021. Chair for planning committee of Western North American Naturalist Symposium
  - 2019-present. Member of Natural Resources Stewardship Committee for the city of Orem
  - 2019-present. Reviewer for Oxford University Press (Invertebrate Zoology textbook)
  - 2018-present. Reviewer for Hydrobiologia
  - 2018-present. Member of the Crustacean Society
  - 2017-2018. Member of Southeastern Society of Parasitologists
  - 2016-2018. Science Judge at the Southeastern Stingray Bowl (regional level of the National Ocean Sciences Bowl)
  - 2016-present. 47 letters of recommendation written for UVU and Armstrong students
  - 2013-present. Reviewer for Marine Biology
  - 2012-present. Reviewer for Estuarine, Coastal, and Shelf Science
  - 2012-present. Member of EvoDemo (Evolutionary Demography) Society

### **Professional Development Activities:**

- 2021. Crucial Conversations Training
  - Skills: how to have important conversations with other people without allowing emotions to get in the way of finding good solutions
- 2021. OTL Online Teaching Academy
  - Skills: how to design effective online courses
- 2021. Foundations of Inclusion Workshop: Microaggressions
  - Skills: how to recognize, avoid, and resolve issues regarding macroaggressions
- 2021. UVU Cybersecurity Training
  - Skills: how to keep UVU's digital resources and networks safe
- 2021. UVU Abusive Conduct Training
  - Skills: how to recognize, report, and avoid abusive behavior at work
- 2021. OTL Bare Essentials for Online Teaching Workshop
  - Skills: how to create a functional online course and communicate with students
- 2020. Foundations of Inclusion Workshop: Race & Ethnicity
  - Skills: how to create a more inclusive course and university experience
- 2020. Foundations of Inclusion Workshop: Class & Socioeconomic Status
  - Skills: how to create a more inclusive course and university experience
- 2020. OTL Learning Circle "The Missing Course" (COVID cancelled part-way through)
  - Skills: the practical tools of pedagogy that professors aren't taught in school
- 2020. OTL Proctorio Training
  - Skills: how to use Proctorio for proctored remote testing in Canvas

- 2020. OTL Microsoft Teams Training
  - Skills: how to use Teams to communicate with live-stream an online courses
- 2020. OTL Kaltura Training
  - Skills: how to record lectures for use on Canvas and in asynchronous courses
- 2019. OTL POET Program
  - Skills: observed and was observed by faculty from another college. Gave opportunities to reflect on teaching activities and styles
- 2019. OTL Learning Circle “How Learning Works”
  - Skills: metacognition and helping students learn how to study
- 2018. SCULPT Mentoring Academy
  - Skills: how to be a better mentor for undergraduate researchers
- 2018. UVU OTL’s All Aboard Training
  - Skills: Canvas, active learning techniques, helping troubled students
- 2015-2018. Junior Faculty Roundtable
  - Skills: work/life balance, teaching/research balance, department resources
- 2017. Workshop on Closing the Student Achievement Gap for First-Year Students
  - Skills: active learning techniques, memory practice, retention tips
- 2017. Georgia Sea Grant Research Symposium & Grant Workshop
  - Skills: successful grant writing
- 2017. Right to Know Training
  - Skills: chemical safety for laboratories
- 2016. USG STEM Summit. August 8, 2016. Middle Georgia State University
  - Skills: improving evidence-based teaching for undergraduates
- 2016-present. Annual Title IX Training
  - Skills: how to help victims of sexual harassment & abuse at universities
- 2015-2016. Faculty Advisor Training
  - Skills: how to advise students to complete their academic programs successfully
- 2015. Wolbachimania Workshop
  - Skills: how to run a CURE for freshman biology
- 2014. Commercial Diver Training
  - Skills: certification to SCUBA dive for scientific and commercial projects
- 2011. Participant, FIRST IV Workshop (Faculty Institutes for Reforming Science Teaching), National Science Foundation
  - Skills: best practices for student-centered undergraduate education