

# Daniel A. Levitis

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## EDUCATION

2009. Ph.D. in Integrative Biology, University of California, Berkeley

Dissertation: "Post-fertile Survival: the Evolution of a Demographic Anomaly"

1999. B.A. in Biology, Bennington College

## UNIVERSITY AND COLLEGE TEACHING

2015-2016. Bates College: Evolutionary Biology, Advanced Topics in Evolution, Conservation Biology, Independent Study in Biology

2013-2015. University of Southern Denmark: Introduction to Evolutionary Demography, Field Course in Terrestrial Zoology, Introduction to Biodemography, First Year Research Projects, Independent Research Projects, Bachelors Projects

2011-2012. Max Planck International Research School for Demography: Introduction to Evolutionary Demography

## SCIENTIFIC PUBLICATIONS (\*=undergraduate coauthor)

2017. **Levitis DA**, Zimmerman K, Pringle A. Is meiosis a fundamental cause of inviability among sexual and asexual plants and animals? Proceedings of the Royal Society B: Biological Sciences. 284, 20170939.

2017. **Levitis DA**, Golan J, Pringle A, Taylor J. A century later, resolving Joseph Grinnell's "Striking Case of Adventitious Coloration." The Auk: Ornithological Advances. 134, 551-552.

2016. Saberski ET\*, Diamond JD\*, Henneman N\*, **Levitis DA**. Post-reproductive parthenogenetic pea aphids (*Acyrtosiphon pisum*) are visually identifiable and disproportionately positioned distally to clonal colonies. PeerJ. 4, e2631

2016. Zimmerman K, **Levitis DA**, Addicott E\*, Pringle A. Selection of Pairings Reaching Evenly Across the Data (SPREAD): A simple algorithm to design maximally informative fully crossed mating experiments. Heredity 116: 182–189.

2016. Dunn PH, Zarulli V, **Levitis DA**. Beyond being eaten or swept away: Ontogenetic transitions drive developmental mortality in marine barnacle larvae. Marine Ecology Progress Series. 559, 103-116.

2016. Zimmerman K, **Levitis DA**, Pringle A. Beyond animals and plants: Dynamic maternal effects in the fungus *Neurospora crassa*. Journal of Evolutionary Biology 29: 1379–1393.

2015. **Levitis DA**. Evolutionary Demography: a synthesis of two population sciences. In: International Encyclopedia of Social and Behavioral Sciences 2nd Edition. ed.: J.D. Wright. 413-419.

2015. Olsen TB\*, Christensen FEG\*, Lundgreen K, Dunn PH, **Levitis DA**.

- Coelomic transport and clearance of foreign bodies by sea stars (*Asterias rubens*). *Biological Bulletin* 228: 156-162.
2015. Oravec Z, Faust K, Batchelder WH, **Levitis DA**. Studying the existence and attributes of consensus on psychological concepts by a cognitive psychological model. *American Journal of Psychology* 128: 61-75.
2013. **Levitis DA**, Burger O, Bingaman Lackey L. The human postfertile life span in comparative evolutionary context. *Evolutionary Anthropology* 22: 66-79.
2013. **Levitis DA**, Martínez DE. The two halves of U-shaped mortality. *Frontiers in Genetics of Aging* 4: 31.
2013. **Levitis DA**, Goldstein J\*. The consistent, non-destructive measurement of small proteiform aquatic animals, with application to the size and growth of hydra. *Marine and Freshwater Research* 64: 332-339.
2011. **Levitis DA**. Before senescence: the evolutionary demography of ontogenesis. *Proceedings of the Royal Society B: Biological Sciences* 278: 801-809.
2011. **Levitis DA**, Bingaman Lackey L. A measure for describing and comparing postreproductive life span as a population trait. *Methods in Ecology and Evolution* 2: 446-453.
2009. **Levitis DA**, Lidicker Jr WZ, Freund G\*. Behavioural biologists do not agree on what constitutes behaviour. *Animal Behaviour* 78: 103-110.
2003. Sherman E, **Levitis DA**. Heat hardening as a function of developmental stage in larval and juvenile *Bufo americanus* and *Xenopus laevis*. *Journal of Thermal Biology* 28: 373-38.

#### **RECENT EMPLOYMENT**

- 2016-Present. Associate Scientist and Graduate Student Mentor, Department of Botany, University of Wisconsin-Madison.
- 2015-2016. Visiting Assistant Professor (Sabbatical Replacement), Department of Biology, Bates College.
- 2013-2015. Assistant Professor, Max Planck Odense Center, Department of Biology, University of Southern Denmark.
- 2009-2012. Research Scientist, Max Planck Institute for Demographic Research.

#### **MENTORING**

- Currently mentoring seven students in the Department of Botany, University of Wisconsin-Madison
- Post-doctoral mentor: Paul Dunn (now Assistant Professor at Armstrong State University), Barbara Pietrzak (now Assistant Professor, University of Warsaw)
- Doctoral dissertation committee member: Jennifer Lohr, University of Fribourg (now postdoc at University of Hamburg)
- European Doctoral School for Demography Research Mentor: Beate Proske (now doctoral student at University of Stockholm)
- Research mentor for >30 undergraduate researchers including:  
Josephine Goldstein, MPIDR (Doctoral Candidate, U. of Southern Denmark)

Jocelyn Guizar, UC Berkeley (Executive Assistant, The New School)  
Nathaniel Henneman, Bates College. (Research Associate, Emory U.)  
Ramsina Lazar, UC Berkeley (Master Student, UC San Diego)  
Nicole Nakamaru, UC Berkeley (Resident Physician, U. of Southern California)  
Beate Proske, MPIDR (Doctoral Candidate, U. of Stockholm)  
Rose Rimler, UC Berkeley (Science Writer, Healthline)  
Myfanwy Rowlands, UC Berkeley (Doctoral Candidate, UC Davis)  
Matt Strausser, UC Berkeley (Wildlife Biologist, NASA Johnson Space Center)  
Lauren Zerbib, UC Berkeley (Pediatrician, UCSF Medical Center)

#### **EXTERNAL FUNDING (Grants less than \$10K not listed)**

2013. Carlsberg Foundation- equipment grant. 275,000 Danish Kroner (written with Hans Ulrik Riisgård and Paul Dunn).  
2008. NIH Ruth L. Kirschstein National Research Service Award- Graduate Fellowship. \$31,486.  
2005. National Geographic Society research grant- \$26,000 (written with Jack Dumbacher).

#### **INVITED LECTURES**

2017. "Why the young die: the evolution of early mortality." University of Wisconsin-Parkside.  
2017. "Evolution and Climate Change." Ripon College.  
2016. "Sex, Death and Meiosis: The evolution of offspring inviability in plants and animals." The J.F. Crow Institute for the Study of Evolution. University of Wisconsin-Madison.  
2016. "Why we die when we die: the evolution of human mortality." Bennington College.  
2015. "Post-reproductive life: humans, orcas, aphids and all." Bates College.  
2014. "The demography, evolution and semantics of post-reproductive lifespan." Population Studies Center, University of Pennsylvania.  
2013. "Evolution of ontogenescence and the dangers of transitions." University of Birmingham, England.  
2012. "An introduction to the evolutionary demography of ontogenesis." University of Southern Denmark.  
2011. "The evolutionary theory of aging, and why it gets everything wrong." University of Fribourg, Switzerland.  
2011. "Senescence through the life-course." Stanford University, Palo Alto, CA.

#### **OTHER PROFESSIONAL SERVICE**

2017. Member of UW-Madison Office of Communication's Panel on Imagery in

Research Communication.

2017. Leader of the Emerson Elementary School Science Club.

2012-2015. Secretary of the Evolutionary Demography Society.

2013. Conference Chair of Evolutionary Demography Society Annual Meeting.

Peer reviewer for Ecology and Evolution, Journal of Animal Ecology, Trends in Ecology and Evolution, Methods in Ecology and Evolution, Proceedings B, Behavioral Ecology and Sociobiology, Journal of the Royal Society Interface, The American Naturalist, Animal Behaviour, The Leakey Foundation, American Journal of Physical Anthropology, PLOS ONE, National Research Council (US), Current Aging Science, Trends in Evolutionary Sociology, Journal of Theoretical Biology, etc.

## **SELECTED POPULAR PRESS**

September 2017. "The Universal Cost of Sex." Julia Cechvala. The Isthmus.

August 2017. "Pregnancy loss and the evolution of sex are linked by cellular line dance." Eric Hamilton. Phys.org.

August 2017. Video: "Why do so many offspring die?"  
<https://www.youtube.com/watch?v=80TA3m6OXz8>

July 2015. "Starfish Ruin an Experiment and Reveal a Superpower" Elizabeth Preston. Discover Magazine Blog.

July 2015. Video: "Søstjernens hemmelighed (The Starfish Secret)"  
<https://www.youtube.com/watch?v=Asry6QJR4hA> (watched >490K times)

June 2015. "Picture of the Day: Watch a starfish squeeze a lodged object out of its arm" Andy Coghlen. New Scientist.

June-July 2015. Related coverage of starfish paper in over 100 news outlets globally.

September 2013. "Why Women Lose Fertility" Daniel Levitis and Alan Cohen. The Scientist.

August 2013. "Killer whales, grandmas and what men want: Evolutionary biologists consider menopause" Erin Wayman. Science News.

April 2013. "Phenomena: Why Menopause?" Carl Zimmer. National Geographic Online.

July 2009. "Basics: When 'What Animals Do' Doesn't Seem to Cover It" Natalie Angier. The New York Times.

April 2007. "Perspectives: Get the Lead Out" Daniel Levitis. KQED Public Radio.