

Daniel A. Levitis

Associate Scientist, Department of Botany, University of Wisconsin-Madison
phone: 207-440-0062 email: levitis@wisc.edu

EDUCATION

2009. Ph.D. in Integrative Biology, University of California, Berkeley, December
Dissertation: "Post-fertile Survival: the Evolution of a Demographic Anomaly"
1999. B.A. in Biology, Bennington College

UNIVERSITY LEVEL 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. Max Planck International Research School for Demography (2011):
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. In Press.
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. 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.
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.
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, Departments of Botany and Bacteriology, 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

- 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)

Recent example of an undergraduate led research project: 2016. Diamond JD*,
Levitis DA. Dichotomous Key to Pea Aphid (*Acyrtosiphon pisum*) Apterous
Parthenogenic Instars. <http://scarab.bates.edu/datasets/1/>

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

2016. Sex, Death and Meiosis: The evolution of offspring inviability in plants and animals. The J.F. Crow Institute for the Study of Evolution.

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. Lead 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, 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

SELECTED POPULAR PRESS

- 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.