

CURRICULUM VITAE

David N. Reznick

WORK ADDRESS: Department of Biology
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BORN: 23 May 1952
New Rochelle, New York

EDUCATION: A.B. Washington University, 1974 (Biology)
Ph.D. University of Pennsylvania, 1980 (Biology)

POSITION:

2012-present	Distinguished Professor, Department of Biology, University of California, Riverside
1994-2012	Professor, Department of Biology, University of California, Riverside
1989-1994	Associate Professor, Department of Biology, University of California, Riverside
1984-1989	Assistant Professor, Department of Biology, University of California, Riverside
1982-1984	Assistant Research Scientist, Department of Zoology, University of Maryland, College Park, Maryland
1980-1982	Research Associate, Academy of Natural Sciences of Philadelphia, Benedict Estuarine Research Laboratories, Benedict, Maryland

ACADEMIC HONORS, FELLOWSHIPS AND AWARDS

Phi Beta Kappa, 1974

Summa Cum Laude, 1974

NIH Trainee in Genetics, 1976-1978

Sigma Xi Outstanding Dissertation Award - University of Pennsylvania Chapter, 1981

Visiting Research Fellow, University of Melbourne, Melbourne, Australia, 1998

Distinguished Visiting Professor, University of Miami, 1998-1999, Academic Year
Guest Professor, University of Konstanz, 1999
Fellow of the American Association for the Advancement of Science, 1998
Faculty Research Lecturer, UC Riverside, 1998
Walton Lecturer, Mountain Lake Biological Station and U. VA., 1999
Edward Sturtevant Hathaway Lectureship, Tulane University, 2002
Edward Osborne Wilson Naturalist Award, American Society of Naturalists, 2003
University of Windsor, Distinguished Lecturer, Robert Doyle Lecture Series, 2006
Fellow of the American Academy of Arts and Sciences, 2011
Guggenheim Fellow, 2016-17
Guest Fellow, Wadham College, Oxford University, 2016-2017
Resident Thinker Fellowship, Deakin University, 2018
Humboldt Fellowship, U. Konstanz, 2020

PROFESSIONAL SOCIETIES

Society for the Study of Evolution, American Society of Naturalists, AAAS

TEACHING EXPERIENCE

Undergraduate

Vertebrate Zoology (U. of MD), Vertebrate Functional Anatomy (U. of CA), Introductory Population Biology (U. of CA), Field Ecology (U. of CA), Evolution (U. of CA)

Graduate

Theory of Evolution (U. of CA), Historical Roots of Major Concepts in Ecology (U. of CA), advanced seminars (U. of CA), Field Ecology (U. of CA), Historical Roots of Major Concepts in Population Genetics (U. of CA), Resource Person for the Organization for Tropical Studies - Course 87-3.

PROFESSIONAL ACTIVITIES

Associate Editor, Evolution (1990-1993)
Associate Editor, Ecology (1995-2001)
Associate Editor, American Naturalist (2004-)
Associate Editor, Functional Ecology (2006-)
Member of the Council, Society for the Study of Evolution
Vice President, American Society of Naturalists (2011-12)

Reviewer of grants for: Australian Research Council, Leverhulme Trust, National Geographic Society, NERC (Great Britain), Netherlands Organization for Scientific Research, NSF, NSERC (Canada), Swiss National Science Foundation, US-Israel Binational Science Foundation

Reviewer of manuscripts for: Acta Oecologica, Aging Cell, American Midland Naturalist, American Naturalist, Behavioral Ecology and Sociobiology, Biological Journal of the Linnaean Society, Canadian Journal of Botany, Canadian Journal of Fisheries and Aquatic Sciences, Canadian Journal of Zoology, Copeia, Ecology, Ecology Letters, ELife, Evolution Letters, Environmental Biology of Fishes, Evolution, Experimental Gerontology, Functional Ecology,

CURRICULUM VITAE

David N. Reznick

Page 3

Heredity, Herpetologica, Integrative and Comparative Biology, Journal of Evolutionary Biology, Journal of Experimental Biology, Journal of Experimental Marine Biology and Ecology, Journal of Fish Biology, Journal of the Marine Biological Association, Molecular Ecology, Journal of the North American Benthological Society, Nature, Nature Communications, Nature Ecology Evolution, Naturwissenschaften, Oecologia, Ohio Journal of Science, Oikos, Physiological and Biochemical Zoology, PLOS Biology, PLOS 1, PNAS, Proceedings of the Royal Society of London Ser. B, Science, Theoretical and Applied Genetics, Trends in Ecology and Evolution

RESEARCH INTERESTS

I study the process of evolution with experiments performed on natural populations. My study organism is guppies from the island of Trinidad. I initially tested predictions of life history theory with the integration of comparative studies of the life history phenotypes of natural populations of guppies that differ in their risk of predation, laboratory studies that established that there was a genetic basis to these differences, and experiments in which I manipulated the risk of predation in nature. These experiments verified the predictions of life history theory and, at the same time, revealed that adaptive evolution is visible within a few years and hence far more rapid than had previously been assumed. I have since explored the consequences of rapid evolution, including the ways in which evolution and ecology interact with each other. One recent accomplishment (2019) has been to show that the cause of life history evolution in localities with low predation risk is driven by density dependent selection, rather than changes in mortality risk. Along the way, I and my colleagues have shown that predation also selects for changes in morphology, behavior, physiology, neuromuscular performance and aging. In a different arena, I am studying the evolution of placentas in the fish family Poeciliidae, which includes guppies. I and my colleagues have combined descriptions of life histories with a molecular-based phylogeny to demonstrate nine independent origins of extensive post-fertilization maternal provisioning and have identified three closely related pairs of species with and without placentas. We have used these three pairs to explore the biological consequences of evolving a placenta and to test theories proposed for the evolution of placentas. We are now exploring how the evolution of maternal provisioning changes the venue of intergenomic conflict and, as a consequence, shapes the evolution of sexually selected traits in males and in the rate of speciation.

GRANTS

- | | |
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| 1975 | Theodore Roosevelt Memorial Fund, \$600. |
| 1976 | Sigma Xi Grant in Aid of Research, \$100. |
| 1978-79 | National Science Foundation Doctoral Dissertation Improvement Grant, \$1,600. |
| 1980-82 | National Science Foundation Grant DEB 80-17011. "The effects of predation on life history evolution in guppies (<i>Poecilia reticulata</i>)" (with Dr. Michael Hirshfield, co-principal investigator), \$85,000. |
| 1983-86 | National Science Foundation Grant DEB-82-14655. "The impact of predation on life history evolution in guppies (<i>Poecilia reticulata</i>)," \$142,000. [Note: \$56,000 in |

CURRICULUM VITAE

David N. Reznick

Page 4

- residual funds were transferred to the University of California, Riverside to support the same research program from 1985-1987. The new grant number was BSR-84-16599.]
- 1984 University of California, Riverside, Academic Senate Research Grant, \$1,200.
- 1985 University of California, Riverside, Academic Senate Research Grant, \$1,400.
- University of California, Riverside, Faculty Minigrant - Vertebrate Functional Anatomy Teaching Aids, \$298.
- 1986 University of California, Riverside, Academic Senate Research Grant, \$1,200.
- 1987 University of California, Riverside, Academic Senate Research Grant, \$1,200.
- University of California, Riverside, Faculty Fellowship, \$2,400.
- University of California, Division of Agriculture and Natural Resources, Mosquito Control Research, \$4,885.
- 1987-89 National Science Foundation Grant BSR-8620463. "Life History Evolution in Guppies," \$80,000.
- 1988 University of California, Division of Agriculture and Natural Resources, Mosquito Control Research, \$8,171.
- University of California, Riverside, Academic Senate Research Grant, \$1,200.
- University of California, Riverside, Academic Senate Travel Grant, \$750.
- University of California, Riverside, Faculty Minigrant - Vertebrate Functional Anatomy Teaching Aids, \$285.
- 1989-92 National Science Foundation Grant (BSR-8818071). "Life History Evolution in Trinidadian Guppies (*Poecilia reticulata*), \$276,002.
- 1989 University of California, Riverside, Academic Senate Research Grant, \$1,400.
- University of California, Riverside, Academic Senate Travel Grant, \$750.
- National Science Foundation Grant. Research Experience for Undergraduates, \$8,000.
- 1990 University of California, Riverside, Academic Senate Research Grant, \$700.
- University of California, Riverside, Academic Senate Travel Grant, \$700.

CURRICULUM VITAE

David N. Reznick

Page 5

- National Science Foundation Grant. Research Experience for Undergraduates, \$4,000.
- 1991 University of California, Riverside, Academic Senate Research Grant, \$1,350.
- University of California, Riverside, Academic Senate Travel Grant, \$300.
- Sutter-Yuba Mosquito Abatement District research grant: "Factors which influence the survival and reproduction of *Gambusia affinis* used for the biological control of mosquitoes. \$3,250
- 1992 National Science Foundation Grant. Research Experience for Undergraduates, \$4,000.
- University of California, Riverside, Academic Senate Research Grant, \$1,300.
- University of California, Riverside, Academic Senate Travel Grant, \$700.
- 1992-94 National Science Foundation Grant (DEB-9119432). "Life history evolution in Trinidadian guppies (*Poecilia reticulata*)," \$256,000 (initiated 3/1/92).
- 1993 University of California, Riverside, Academic Senate Research Grant, \$1,300.
- University of California, Riverside, Academic Senate Travel Grant, \$500.
- National Science Foundation Grant. Research experience for Undergraduates. \$8,000
- 1994 University of California, Riverside, Academic Senate Research Grant, \$1,000
- University of California, Riverside, Academic Senate Travel Grant, \$500
- 1994-97 National Institutes of Health (1F32GM16990). "Genetic variation in maturation and secondary sex traits." (With postgraduate researcher, Kim Hughes.) \$52,300.
- 1995 University of California, Riverside, Academic Senate Research Grant, \$1,300
- University of California, Riverside, Academic Senate Travel Grant, \$500
- 1995-98 National Science Foundation (DEB-9419832). "The role of population density and resource limitation in predator/limitation in predator/prey-mediated life history traits". \$311,999.
- National Science Foundation (DEB-9419832). "Research Experience for Undergraduates - The role of population density and resource limitation in predator/limitation in predator/prey-mediated life history traits. \$15,000.

CURRICULUM VITAE

David N. Reznick

Page 6

- 1995-97 National Science Foundation (IBN-9520673). "Doctoral Dissertation Research: Causes and consequences of morphological variation within fence lizard populations". (With graduate student, Ken Halama.) \$3,548
- 1996 University of California, Riverside, Academic Senate Research Grant, \$1,000
University of California, Riverside, Academic Senate Travel Grant, \$700
- 1997 University of California, Academic Senate Research and Travel Grant, \$800
- 1998 Australian Research Council (Graeme Watson, P.I.). Plasticity in Larval Development in *Crinia signifera*. \$17,000
Australian Research Council: Visiting Faculty Collaborator Support, \$6,000
University of California, Academic Senate Research and Travel Grant, \$2,000
- 1998-00 National Science Foundation (DEB-9801492). Dissertation Research: Evolution of offspring size in the Trinidadian guppy *Poecilia reticulata*. (With graduate student Farrah Bashey). \$10,000
- 1998-02 National Science Foundation (DEB-9707473). Evolution of Aging in Guppies (*Poecilia reticulata*). \$400,001
National Science Foundation (DEB-9707473). REU: The role of senescence in life history evolution. \$20,000.
- 1999 University of California, Academic Senate Research and Travel Grant, \$1,600
National Science Foundation (DBI9804130). Postdoctoral research fellowship in biosciences related to the environment for FY 1998". (With Postdoc Doughy). \$2,000
- 2000 University of California, Academic Senate Research and Travel Grant, \$1550
National Science Foundation/SGER (DEB-9986801). ASGER: Comparative studies of senescence in natural populations of guppies, \$27,212
- 2000-2002 National Science Foundation (DEB-0073231), Dissertation Research: Secondary reproductive characteristics, and biogeography of the Poeciliid fish genus *Limia*. (With graduate student A. Hamilton) \$9,600
- 2002 University of California, Academic Senate Research and Travel Grant, \$2,000
- 2001-2004 National Science Foundation (IBN-0111023) – Collaborative Research. The evolutionary interplays between life histories, morphology, performance and behavior in Trinidadian Guppies. \$333,139. PI – David Reznick, Co-PI – Cameron Ghalambor
- 2001-2005 National Science Foundation – Muscle fiber recruitment in relation to growth and swimming speed in spadefoot tadpoles. \$320,022. PI – Jeff Arendt, Co-PI – David

CURRICULUM VITAE

David N. Reznick

Page 7

Reznick

- 2003-2007 National Science Foundation (DEB-0235605). Adaptive divergence versus gene flow in the wild: Evolution in Trinidadian guppy populations. PI – Michael Kinnison, Co-PIs – Paul Bentzen, Andrew Hendry, David Reznick. \$356,000
- 2004 University of California, Academic Senate Research and Travel Grant, \$1454
- 2004-2009 National Science Foundation (DEB-0416085). The evolution of placentas in the Poeciliid Fishes: An empirical study of the evolution of complexity. PI- David Reznick. Co-PIs – Mark Springer, Theodore Garland. \$800,000 plus \$36,000 in REU supplements
- 2006-2013 National Science Foundation (DEB-0623632EF). **FIBR: From genes to ecosystems: How do ecological and evolutionary processes interact in nature?** David Reznick(PI, UC Riverside), Joseph Travis(Co-PI, Fl.State), Cathy Pringle(CP, U.Georgia), Douglas Fraser(CP, Sienna College), Regis Ferriere(CP, U. of Arizona), Michael Kinnison(Senior Personnel,U.of Maine), Alex Flecker(SP, Cornell), Cameron Ghalambor(SP, Colorado State), Jim Gilliam(SP, NC State), Andrew Hendry(SP, McGill U.), Paul Bentzen(SP,Dalhousie), Steve Thomas(SP,U. Nebraska), Don deAngelis(SP, USGS). \$5,128,002.
- 2007-2009 National Science Foundation (DEB-0710185): Dissertation Research(Amanda Banet) An examination of Variations on the Theme of Livebearing. \$11,440.
- 2008-2010 National Science Foundation (DEB-0808039): Dissertation Research (Matthew Walsh): The influence of the direct and indirect effects of predators on life history evolution in a Trinidadian killifish. \$11,965
- 2011-2013 National Science Foundation, Informal Science Education Program(005455-002): Experiencing evolution: integrating mobile gaming and multimedia to extend informal evolution education. \$149,990
- 2013-2015 National Science Foundation (DEB- 1258231): Experimental evolution in natural populations of guppies. \$996,855. David Reznick (PI, UC Riverside), Joseph Travis (Co-PI, Florida State), Andres Lopez-Sepulcre (Co-PI, L'Ecole Normal Superieure, Paris), John Endler (Co-PI, Deacon University, Australia), Paul Bentzen (Co-PI, Dalhousie University)
REU Supplement. \$30,000, joint NSF-CAPES student exchange program, \$7500 to DR
- 2013-2014 National Geographic Society: Experimental studies of species invasions. \$21,600. D. Reznick (PI, UC Riverside), Andres Lopez-Sepulcre (L'Ecole Normal Superieure, Paris), Joe Travis (Florida State University)
- 2016-2019 National Science Foundation (DEB 1556884): The Paradox of Coexistence: The Evolution of Ontogenetic Interactions. \$996,888. Joseph Travis (PI, Florida State), David Reznick (Co-PI, UC Riverside), Ronald Bassar (Co-PI, Oxford University), Tim Coulson (Co-PI, Oxford University), Andres Lopez-Sepulcre (Co-PI, CNRS).

CURRICULUM VITAE

David N. Reznick

Page 8

2017-2018 National Science Foundation (DEB1700899): DISSERTATION RESEARCH: Examining Evidence for Phenotypic and Genetic Convergence in the Guppy (*Poecilia reticulata*). \$17,310. David Reznick (PI), Cheryl Hayashi (Co-PI), Cynthia Dick (Co-PI).

2018-2021 National Science Foundation (DEB1754669): The evolution of placentas in the fish family Poeciliidae – an empirical study of macroevolution. David Reznick (PI), Gil Rosenthal (Co-PI), Mark Springer (Co-PI), Joseph Travis (Co-PI). \$976,042.

2020-2023 National Science Foundation – in review: BEE: Causes and Consequences of Joint Ecological and Evolutionary Change. Ron Bassar (PI), Tim Coulson (Co-PI), D. N. Reznick (Co-PI) and J. Travis (Co-PI). \$1,474,674.

UNDERGRADUATE STUDENTS IN LABORATORY

I employ an average of 14 students at a time as research assistants and sponsor an average of three per year as independent study students.

PUBLICATIONS

1980 **Reznick, D. N.** Life history evolution in the guppy (*Poecilia reticulata*). Doctoral dissertation, the University of Pennsylvania, 215 pp.

1981 **Reznick, D. N.**, O. J. Sexton, and C. Mantis. Initial prey preferences in the lizard *Sceloporus malachiticus*. *Copeia* 1981:681-686.

Reznick, D. N. "Grandfather effects": the genetics of inter-population differences in offspring size in the mosquito fish *Gambusia affinis*. *Evolution* 35:941-953.

1982 **Reznick, D. N.** and J. E. Endler. The impact of predation on life history evolution in Trinidadian guppies (*Poecilia reticulata*). *Evolution* 36:160-177.

Reznick, D. N. Genetic determination of offspring size in the guppy (*Poecilia reticulata*). *American Naturalist* 120:181-188.

Reznick, D. N. The impact of predation of life history evolution in Trinidadian guppies: the genetic components of observed life history differences. *Evolution* 36:1236-1250.

1983 **Reznick, D. N.** The structure of guppy life histories: the tradeoff between growth and reproduction. *Ecology* 64:862-873.

1985 **Reznick, D. N.** Costs of reproduction: an evaluation of the empirical evidence. *Oikos*. 44:257-267.

CURRICULUM VITAE

David N. Reznick

Page 9

- 1986 **Reznick, D. N.** and O. J. Sexton. Temporal variation in fecundity in *Sceloporus malachiticus*. *J. of Herpetology* 20:457-459.
- Reznick, D. N.**, E. Perry and J. Travis. Measuring the cost of reproduction: a comment on papers by Bell (1984a, b). *Evolution* 40:1338-1344.
- 1987 **Reznick, D. N.** and B. Braun*. Fat cycling in the mosquitofish (*Gambusia affinis*): is fat storage a reproductive adaptation? *Oecologia* 73:401-413.
- Reznick, D. N.** and H. Bryga*. Life history evolution in guppies: (*Poecilia reticulata*): 1. Phenotypic and Genetic Changes in an Introduction Experiment. *Evolution* 41:1370-1385.
- 1987 Dunham, A. E., D. Miles and **D. Reznick**. Life history patterns of squamate reptiles. In: Biology of the Reptilia, Vol 16, Ecology B. (C. Gans and R. B. Huey, eds.) New York: Alan R. Liss Inc., pp. 441-552.
- 1989 **Reznick, D. N.**, E. O. Lindbeck* and H. Bryga*. Slower growth results in larger otoliths: an experimental test with guppies (*Poecilia reticulata*). *Can. J. Fish. Aquatic Sci.* 46:108-112.
- Reznick, D. N.** Life history evolution in guppies: 2. Repeatability of field phenotypes and multivariate analyses of life history patterns. *Evolution* 42:1285-1297.
- Reznick, D. N.** and D. B. Miles. A review of life history patterns in Poeciliid fishes. In: Ecology and Evolution of Livebearing Fishes (Poeciliidae), (G. K. Meffe and F. F. Snelson, eds.) Prentice Hall, Englewood Cliffs, NJ, pp. 125-148.
- 1990 **Reznick, D. N.** Plasticity in age and size at maturity in male guppies (*Poecilia reticulata*): An experimental evaluation of alternative models of development. *J. Evol. Biol.* 3:185-203.
- Reznick, D. N.**, H. Bryga, and J. Endler. Experimentally induced life-history in a natural population. *Nature* 346:357-359.
- 1991 Rodd, H. and **D. N. Reznick**. Life history evolution in guppies: 3. The impact of prawn predation on guppy life histories. *Oikos* 62:13-19.
- Reznick, D. N.** Maternal effects in fish life histories. In: The Unity of Evolutionary Biology, (E. Dudley, ed.). Fourth International Congress of Systematic and Evolutionary Biology. Discorides Press, Portland, Oregon, pp. 780-793.
- 1992 **Reznick, D. N.** Measuring the costs of reproduction. *Trends in Ecology and Evolution* 7:42-45.

- Reznick, D. N.** Measuring reproductive costs: response to Partridge. *Trends in Ecology and Evolution* 7:134 (letter).
- Reznick, D. N., D. B. Miles and S. Winslow*.** Life history of *Poecilia picta* (Poeciliidae) from Trinidad. *Copeia* 1992:782-790.
- 1993 **Reznick, D. N., A. Meyer and D. Frear*.** Life history of *Brachyrhaphis rhabdophora* (Pisces: Poeciliidae). *Copeia* 1993:103-111.
- Reznick, D. N. and A. P. Yang*.** The influence of fluctuating resource availability on female life histories in *Poecilia reticulata*: patterns of allocation and plasticity. *Ecology* 74:2011-2019.
- Reznick, D. N.** New model systems for studying the evolutionary biology of aging. *Genetica* 91:79-88.
- Reznick, D. N.** Norms of reaction in fishes. In: Proceedings of the Conference on the Management and Exploitation of Evolving Resources, (T. K. Stokes and R. Law, eds). Springer-Verlag, New York, pp. 72-90.
- 1994 **Reznick, D. N., R. I. Baxter and J. A. Endler.** Long-term studies of tropical streamfish communities: the use of field notes and museum collections to reconstruct communities of the past. *American Zoologist* 34:452-462.
- Reznick, D. N.** Contributions to "Encyclopedia of Ecology and Environmental Management". Blackwell Scientific, Oxford. Definition of Oviparity, Ovoviviparity, viviparity, Microevolutionary Tradeoff.
- 1995 **Reznick, D. N.** Ecological research. *Science* 269:1202 (letter).
- Power, M. E., et al. The role of experiments in ecology. *Science* 270:561 (letter).
- Sato, A., F. Figueroa, C. O'Huigin, **D. N. Reznick** and J. Klein. Identification of major histocompatibility complex genes in the guppy, *Poecilia reticulata*. *Immunogenetics* 43:28-49.
- 1996 **Reznick, D. N., H. F. Rodd and M. Cardenas*.** Life history evolution in guppies (*Poecilia reticulata*: Poeciliidae). 4. Convergence in life history phenotypes. *American Naturalist* 147:319-338.
- Reznick, D. N. and H. Bryga.** Life history evolution in guppies (*Poecilia reticulata*): Poeciliidae): 5. Genetic basis of parallelism in life histories. *American Naturalist* 147:339-359.
- Reznick, D., H. Callahan* and R. Llauredo*.** Maternal effects on offspring quality in Poeciliid fishes. *American Zoologist* 36:147-156.

- Reznick, D. N.**, M. J. Butler IV, F. H. Rodd, and P. Ross. Life history evolution in guppies (*Poecilia reticulata*). 6. Differential mortality as a mechanism for natural selection. *Evolution* 50:1651-1660.
- Reznick, D. N.** Life history evolution in guppies: a model system for the empirical study of adaptation. *Netherlands Journal of Zoology* 46(3-4):1-19.
- Kolluru, G. R. and **D. N. Reznick**. Genetic and social control of male maturation in *Phallichthys quadripunctatus* (Pisces: Poeciliidae). *J. Evol. Biol.* 9:695-715.
- Reznick, D. N.** and J. Travis. The empirical study of adaptation in natural populations. In: Adaptation, (M. R. Rose and G. V. Lauder, eds.). Academic Press, San Diego, CA, pp. 243-290.
- Travis, J. and **D. N. Reznick**. Experimental approaches to the study of evolution. In: State of Experimental Ecology: Questions, Levels and Approaches, (J. Bernardo and W. J. Resetarits, Jr., eds). Oxford University Press, Oxford.
- 1997 **Reznick, D. N.** Life history evolution in Guppies (*Poecilia reticulata*): Guppies as a model for studying the evolutionary biology of aging. *Experimental Gerontology* 32/3:245-258.
- Rodd, F. H. and **D. N. Reznick**. Variation in the demography of natural populations of guppies: the importance of predation and life histories. *Ecology* 78:405-418.
- Rodd, F. H., **D. N. Reznick** and M. B. Sokolowski. Phenotypic plasticity in the life history traits of Trinidadian guppies (*Poecilia reticulata*): responses to social environment. *Ecology* 78:419-433.
- Reznick, D. N.**, F. H. Shaw, F. H. Rodd, and R. G. Shaw. Evaluation of the rate of evolution in natural populations of guppies (*Poecilia reticulata*). *Science* 275:1934-1937.
- 1999 Hughes, KA, L. Du*, F. H. Rodd and **D. N. Reznick**. Familiarity leads to female mate preference for novel males in the guppy *Poecilia reticulata*. *Animal Behavior* 58: 907-916.
- Reznick, D. N.** and C. Ghalambor. Evolutionary biology - Sex and death. *Science* 286:2458-2459.
- 2000 Morey, S and **D. Reznick**. A comparative analysis of plasticity in larval development in three species of spadefoot toads. *Ecology* 81:1736-1749.
- Reznick, D. N.**, L. Nunney and A. Tessier. Big houses, big cars, superfleas and the costs of reproduction. *Trends in Ecology and Evolution* 15: 421-425.

Arias, Ai-Li* and **D. Reznick**. Life history of *Phalloceros caudimaculatus*: A novel variation on the theme of livebearing in the family Poeciliidae. *Copeia* 2000: 792-798.

- 2001 Morey, S. and **D. Reznick**. Effects of larval density on postmetamorphic spadefoot toads (*Scaphiopus hammondi*). *Ecology* 82: 510-522

Reznick, D., M. J. Butler IV, and H. Rodd. Life history evolution in guppies 7: The comparative ecology of high and low predation environments. *American Naturalist* 157: 126-140.

Grether, G. F., D. F. Millie, M. J. Bryant, **D. N. Reznick** and W. Mayea*. Rainforest canopy cover, resource availability, and life history evolution in guppies. *Ecology* 82: 1546-1559.

Reznick, D. N., G. Buckwalter, J. Groff, and D. Elder. The evolution of senescence in natural populations of guppies (*Poecilia reticulata*): A comparative approach. *Exp. Gerontol.* 36: 791-812.

Leips, J., C. T. Baril, F. H. Rodd, **D. N. Reznick**, F. Bashey, G. J. Visser, and J. Travis. The suitability of calcein to mark poeciliid fish and a new method of detection. *Trans. Am. Fish. Soc.* 130:501-507.

Reznick, D. N. Natural selection - introduction. *Encyclopedia of Life Sciences*, Nature Publishing Group, London.

Reznick, D. N. and J. Travis. An introduction to the concept of adaptation and its empirical foundations. In *Evolutionary Ecology: Concepts and Case Studies*, (C. Fox, D. Roff, and D. Fairbairn, eds.). Oxford University Press.

Halama, K. J. and **D. N. Reznick**. Adaptation, optimality, and the meaning of phenotypic variation in natural populations. In *Adaptation and Optimality*, (S. H. Orzack and E. Sober, eds.). Cambridge University Press.

Reznick, D. N. and C. Ghalambor. The population ecology of contemporary adaptation: What empirical studies reveal about the conditions that promote adaptive evolution. *Genetica* 112/113: 183-198.

2002

Reznick, D. N., M. J. Bryant, and F. Bashey. r- and K-selection revisited: The role of density, resources, and environmental fluctuations in life-history evolution. *Ecology* 83: 1509-1520.

Bronikowski, AM; Clark, ME; Rodd, FH; **Reznick, DN**. Population-dynamic consequences of predator-induced life history variation in the guppy (*Poecilia reticulata*) *Ecology* 83:2194-2204.

Reznick, D., C. Ghalambor, and L. Nunney. The evolution of senescence in fish. *Mechanisms of Aging and Development* 123: 773-789.

Reznick, D. N., M. Mateos, and M. S. Springer. Independent origins and rapid evolution of the placenta in the fish genus *Poeciliopsis*. *Science* 298: 1018-1020.

2003

Ghalambor, C. K., J. A. Walker, and **D. N. Reznick**. Multi-trait selection, adaptation, and constraints on the evolution of burst swimming performance. *Integrative and Comparative Biology* 43: 431-438.

2004

Morey, S. and **D. N. Reznick**. The Relationship Between Habitat Permanence and Larval Development in California Spadefoot Toads: Field and Laboratory Comparisons of Developmental Plasticity. *Oikos* 104: 172-190.

Bryant, M. and **D. N. Reznick**. Comparative Studies of Senescence in Natural Populations of Guppies. *American Naturalist* 163: 55-68.

Ghalambor, C. K., **D. N. Reznick** and J. A. Walker. Constraints on adaptive evolution: The functional tradeoff between reproduction and fast-start swimming performance in the Trinidadian guppy (*Poecilia reticulata*). *American Naturalist* 164: 38-50.

Reznick, D. N., Bryant, M., Roff D. A., Ghalambor, G. and Ghalambor, D. E. 2004. Effects of extrinsic mortality on the evolution of senescence in guppies. *Nature* 431: 1095-1099.

Faculty of 1000

Featured as an “Emerging Research Front Paper” by Thomson Reuters ScienceWatch – October 2008

Reznick, D. N., L. Nunney, and H. Rodd. Empirical evidence for rapid evolution. In *Evolutionary Conservation Biology*, (D. Couvet, U. Diekman, and R. Ferrier, eds). Cambridge University Press.

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David N. Reznick

Page 27

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