DANIEL K. RISKIN
Curriculum Vitae

Adjunct Professor
Department of Biology
University of Toronto Mississauga
3359 Mississauga Road
Mississauga, Ontario
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POPULAR BOOK

Mother Nature is Trying to Kill You (Simon & Schuster) *2014*
Toronto Star Bestseller, Original Non-fiction.
Globe and Mail Bestseller, Original Non-fiction.

ACADEMIC APPOINTMENTS

Adjunct Professor *2014-present*
Department of Biology, University of Toronto Mississauga
Mississauga, ON, Canada

Assistant Professor *2010-2011*
Department of Biology, City College of the City University of New York
New York, NY, U.S.A.

Postdoctoral Research Associate *2006-2010*
Department of Ecology and Evolutionary Biology, Brown University
Providence, RI, U.S.A.

Postdoctoral Research Fellow *2006-2008*
Center for Ecology and Conservation Biology, Boston University
Boston, MA, U.S.A.

EDUCATION

Ph.D. (Zoology) *2002-2006*
Department of Biomedical Sciences, Cornell University
Ithaca NY, U.S.A.
Advisor: John W. Hermanson

M.Sc. (Biology) *1998-2000*
Department of Biology, York University
Toronto ON, Canada
Advisor: M. Brock Fenton

B.Sc. with Distinction (Zoology) *1993-1997*
Department of Biological Sciences, University of Alberta
Edmonton AB, Canada

REFEREED ACADEMIC PUBLICATIONS

[26] **Riskin, D. K.**, C. J. Kendall, and J. W. Hermanson. 2016. The crouching of the shrew: Mechanical consequences of limb posture in small mammals. *PeerJ*. doi: 10.7717/peerj.2131.

[25] **Riskin, D. K.**, J. E. A. Bertram, and J. W. Hermanson. 2016. The evolution of terrestrial locomotion in bats: The bad, the ugly, and the good. In: *Understanding mammalian locomotion: Concepts and applications*. (edited by J. E. A. Bertram). Chapter 12. John Wiley and Sons.

[24] Bergou, A. J. S. M. Swartz, **D. K. Riskin**, H. Vejdani, L. Reimnitz, G. Taubin, K. S. Breuer. 2015. Falling with style: Bats perform complex aerial rotations by adjusting wing inertia. *PLoS Biology*. doi: 10.1371/journal.pbio.1002297.

[23] Cheney, J. A., D. Ton, N. Konow, **D. K. Riskin**, K. S. Breuer, and S. M. Swartz. 2014. Hindlimb motion during steady flight of the lesser dog-faced fruit bat, *Cynopterus brachyotis*. *PLoS One*. doi: 1371/journal.pone.0098093.

[22] Bahlman, J. W., S. M. Swartz., **D. K. Riskin**, and K. S. Breuer. 2012. Glide performance and aerodynamics of non-equilibrium glides in northern flying squirrels (*Glaucomys sabrinus*). *Journal of the Royal Society Interface*. doi: 10.1098/rsif.2012.0794.

[21] Iriarte-Díaz, J., **D. K. Riskin**, K. S. Breuer, and S. M. Swartz. 2012. Kinematic plasticity during flight in fruit bats: Individual variability in response to loading. *PLoS One*. 7(5): e36665.

[20] **Riskin, D. K.**, Bergou, A. Breuer, and S. M. Swartz. 2012. Upstroke wing flexion and the inertial cost of bat flight. *Proceedings of the Royal Society B*. 279: 2945-2950.

[19] Swartz, S. M., J. Iriarte-Díaz, **D. K. Riskin**, and K. S. Breuer. 2012. A bird? A plane? No, it's a bat: an introduction to the biomechanics of bat flight. In: *Evolutionary history of bats: Fossils, molecules, and morphology*. (edited by Gunnell, G. F., and Simmons, N. B.). Cambridge University Press.

[18] Iriarte-Díaz, J., **D. K. Riskin**, D. J. Willis, K. S. Breuer, and S. M. Swartz. 2011. Whole-body kinematics of a fruit bat reveal the influence of wing inertia on body accelerations. *Journal of Experimental Biology*. 214: 1546-1553.

[17] MacAyeal, L. C., **D. K. Riskin**, S. M. Swartz, and K. S. Breuer. 2011. Vertical flight performance and load carrying in Lesser Dog-faced Fruit Bats (*Cynopterus brachyotis*). *Journal of Experimental Biology*. 214: 786-793.

[16] **Riskin, D. K.**, J. Iriarte-Díaz, K. M. Middleton, K. S. Breuer, and S. M. Swartz. 2010. The effect of body size on the wing movements of pteropodid bats, with insights into thrust and lift production. *Journal of Experimental Biology*. 213: 4110-4122.

[15] Hubel, T. Y., **D. K. Riskin**, S. M. Swartz, and K. S. Breuer. 2010. Wake structure and wing kinematics: the flight of the lesser dog-faced fruit bat, *Cynopterus brachyotis*. *Journal of Experimental Biology*. 213: 3427-3440.

[14] Parsons. S., **D. K. Riskin**, and J. W. Hermanson. 2010. Echolocation call production during aerial and terrestrial locomotion by New Zealand's enigmatic lesser short-tailed bat, *Mystacina tuberculata*. *Journal of Experimental Biology*. 213: 551-557.

[13] **Riskin, D. K.**, and P. A. Racey. 2010. How do sucker-footed bats hold on, and why do they roost head-up? *Biological Journal of the Linnean Society*. 99: 233-240.

[12] **Riskin, D. K.**, J. W. Bahlman, T. Y. Hubel, J. M. Ratcliffe, T. H. Kunz, and S. M. Swartz. 2009. Bats go head-under-heels: The biomechanics of landing on a ceiling. *Journal of Experimental Biology*. 212: 945-953.

[11] **Riskin, D. K.**, D. J. Willis, T. L. Hedrick, J. Iriarte-Díaz, M. Kostandov, J. Chen, D. H. Laidlaw, K. S. Breuer, and S. M. Swartz. 2008. Quantifying the complexity of bat wing kinematics. *Journal of Theoretical Biology*. 254: 604-615.

[10] Williams, W. O., **D. K. Riskin**, and K. M. Mott. 2008. Ultrasonic sound measurement as an indicator of acute pain in laboratory mice. *Journal of the American Association of Laboratory Animal Science*. 47: 8-10.

[9] **Riskin, D. K.**, G. G. Carter, S. Parsons, W. A. Schutt, Jr., and J. W. Hermanson. 2006. Terrestrial locomotion of the New Zealand Short-tailed Bat *Mystacina tuberculata* and the Common Vampire Bat *Desmodus rotundus*. *Journal of Experimental Biology* 209: 1725-1736.

[8] Carter, G. G., and **D. K. Riskin**. 2006. Mystacina tuberculata. *Mammalian Species* 790: 1-8.

[7] **Riskin, D. K.**, J. E. A. Bertram, and J. W. Hermanson. 2005. Testing the hindlimb-strength hypothesis: Non-aerial locomotion by Chiroptera is not constrained by the dimensions of the femur or tibia. *Journal of Experimental Biology* 208: 1309-1319.

[6] **Riskin, D. K.**, and J. W. Hermanson. 2005. Independent evolution of running in vampire bats. *Nature*. 434: 292.

[5] **Riskin, D. K.**, and M. B. Fenton. 2001. Sticking ability in Spix's disk-winged bat, *Thyroptera tricolor* (Microchiroptera: Thyropteridae). *Canadian Journal of Zoology* 79: 2261-2267.

[4] **Riskin, D. K.** 2001. Pipistrellus bodenheimeri. *Mammalian Species* 651: 1-3.

[3] Fenton, M. B., E. Bernard, S. Bouchard, L. Hollis, D. Johnston, C. L. Lausen, J. M. Ratcliffe, **D. K. Riskin**, J. R. Taylor, and J. Zigouris. 2001. The Bat Fauna of Lamanai, Belize: Roosts and trophic roles. *Journal of Tropical Ecology* 17: 511-524.

[2] Fenton, M. B., M. J. Vonhof, S. Bouchard, S. Gill, D. Johnston, F. A. Reid, **D. K. Riskin**, K. L. Standing, J. Taylor, and R. Wagner. 2000. Roosts used by *Sturnira lilium* (Chiroptera: Phyllostomidae) in Belize. *Biotropica* 22: 729-733.

[1] **Riskin, D. K.**, M. J. Pybus. 1998. The use of exposed diurnal roosts in Alberta by the little brown bat, *Myotis lucifugus*. *Canadian Journal of Zoology* 76: 767-770.

NON-REFEREED ACADEMIC PUBLICATIONS

Riskin, D. K. 2013. Making science sexy: How to grab - and hold - an audience to promote science (commentary). *The Wildlife Professional*: Fall 2013: 28-30.

Waldman, R. M., A. Song, **D. K. Riskin**, S. M. Swartz, and K. S. Breuer. 2008. Aerodynamic behavior of compliant membranes as related to bat flight. *American Institute of Aeronautics and Astronautics Journal*: AIAA no. 2008-3716.

Willis, D. J., M. Kostandov, **D. K. Riskin**, J. Peraire, D. H. Laidlaw, S. M. Swartz, and K. S. Breuer. 2007. Modeling the flight of a bat (science visualization feature). *Science* 317: 1860.

Rypien, K. L., J. Anderson, J. Andras, R. W. Clark, G. Gerrish, J. Mandel, M. L. Nydam, and **D. K. Riskin**. 2007. Correspondence: Students unite to create state of the planet course. *Nature* 447: 775.

Swartz, S. M., J. Iriarte-Díaz, **D. K. Riskin**, A. Song, X. Tian, D. J. Willis, and K. S. Breuer. 2007. Wing structure and the aerodynamic basis of flight in bats. *American Institute of Aeronautics and Astronautics Journal*: AIAA no. 2007-42.

Riskin, D. K. 2006. Biomechanics of terrestrial locomotion in bats. Ph.D. Dissertation, Cornell University.

Riskin, D. K. 2000. A behavioural investigation of the sticking mechanisms and non-aerial locomotion of Spixs disk-winged bat, *Thyroptera tricolor* (Microchiroptera: Thyropteridae). M.Sc Thesis, York University.

Riskin, D. K. 1996. Examination of the diversification of eutherian mammals in the early Paleocene of North America. Partially reprinted in Carroll, R. L. 1997. Patterns and Processes of Vertebrate Evolution. Cambridge University Press, 448 Pages.

COURSES TAUGHT

State of the Planet *2006*

Cornell University, Ithaca, NY.

The course was a lecture series with guided discussion groups focused on sustainability

issues. Guest speakers spanned a broad range of disciplines with diverse perspectives on the problems and solutions facing our planet. I helped to design the course, and wrote about that experience in a commentary to the journal *Nature*.

The Biology of Desert-dwelling Bats (Two-week field course in Sede Boqer, Israel) *2006*
University of Western Ontario, London, ON.
Taught identification, handling, and echolocation call analysis for bats, and assisted undergraduate students in the design of their independent projects.

The Vertebrates: Structure, Function, and Evolution *2006*
Cornell University, Ithaca, NY.
Lab instructor and occasional lecturer.

Freshman Writing Seminar: "How to Write About Science" *2005*
Cornell University, Ithaca, NY.
Designed and taught one-semester course for undergraduate students.

Introductory Biology *2002-2005*
Cornell University, Ithaca, NY.
Lab Instructor. (Outstanding Teaching Assistant Award)

Introductory Biology *2001*
Camosun College, Victoria, Canada.
Lecturer and Lab Instructor

Concepts in Animal Ecology *1999*
York University, Toronto, Canada.
Laboratory Instructor

JOURNAL REFEREE

Acta Chiropterologica
Australian Journal of Zoology
Biological Journal of the Linnean Society
Evolutionary Ecology
Journal of Experimental Biology
Journal of Experimental Zoology Part A: Ecological Genetics and Physiology
Journal of Mammalogy
Journal of Theoretical Biology
Journal of Tropical Ecology
Journal of Wildlife Management
Zoological Studies
Zoology