DANIEL K. RISKIN

Curriculum Vitae

Co-Host & Producer, **Daily Planet**
Discovery Channel Canada
9 Channel Nine Court
Scarborough, Ontario
M1S 4B5 Canada

TELEVISION

Daily Planet, *Discovery Channel Canada*. Co-host. *2011-present*
The only daily science magazine show in the world.
Five one-hour episodes per week.

Monsters Inside Me, *Animal Planet* (USA), Expert. *2009-2012*
One-hour episodes about parasites and the people infected by them.
Three seasons, 20 episodes.

Human Nature, *Discovery Science* (USA), Host. *2012*
Dan travels the world to understand the mysteries of the mind that make us human.
One Season, 4 episodes.

Bedbug Apocalypse, *Animal Planet* (USA), Expert. *2011*
One-hour Special.

Evolve, *History Channel* (USA), Expert. *2008*
One season, 13 epsiodes.

ACADEMIC APPOINTMENTS

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*
Brown University Department of Ecology and Evolutionary Biology
Providence, RI, U.S.A.

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

EDUCATION

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

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

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

REFEREED JOURNAL PUBLICATIONS

[19] **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*. doi: 10.1098/rspb.2012.0346.

[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.**, 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.

REFEREED BOOK CHAPTERS

[2] **Riskin, D. K.**, and J. W. Hermanson. *in press*. Wings as legs: Bat terrestrial locomotion. In: *Understanding mammalian locomotion: Concepts and applications*. (ed. Bertram, J. E. A.). Wiley-Blackwell.

[1] Swartz, S. M., Iriarte-Díaz, J., **Riskin, D. K.**, and Breuer, K. S. *in press*. 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*. (ed. Gunnell, G. F., and Simmons, N. B.). Cambridge University Press.

NON-REFEREED PUBLICATIONS

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.

AWARDS FOR TEACHING AND ORAL PRESENTATION

Society for Experimental Biology Talk Prize *2008*
Biomechanics Session, Society for Experimental Biology Meeting

Robert H. Whittaker Award for Best Oral Presentation *2005*
Cornell Ecology and Evolutionary Biology Symposium

Bat Conservation International Award *2004*
North American Symposium on Bat Research

Knight Institute Buttrick-Crippen Fellowship *2004*
To design and teach a Freshman Writing Seminar at Cornell University

Outstanding Teaching Assistant Award *2003*
For Introductory Biology at Cornell University

OTHER AWARDS, GRANTS, AND SCHOLARSHIPS

Postdoctorate

Company of Biologists Travel Grant and **Student Grant** *2008*
Society for Experimental Biology

First Prize: "Modeling the flight of a bat." *2007*
AAAS and *Science* Magazine International Science and Engineering Visualization Challenge
Published in *Science* 317: 1860.

Doctorate

Grant in Aid of Research *2005*
Sigma Xi

Veterinary Medicine Conference Grant *2005*
Cornell University Department of Biomedical Sciences

Company of Biologists Traveling Fellowship *2004*
from the *Journal of Experimental Biology*

Veterinary Medicine Conference Grant *2004*
Cornell University Department of Biomedical Sciences

Bat Conservation International Scholarship *2004*
(declined)

NSERC Canada Graduate Scholarship *2003*
(declined)

Andrew W. Mellon Scholarship *2003*
Cornell University

NSERC Postgraduate Scholarship B *2003*

Masters

Graduate Development Fund Scholarship *1999*
York University

NSERC Winner Award Supplement *1998*
York University

NSERC Postgraduate Scholarship A *1998*

Undergraduate

Young Canada Works in Heritage Institutions Scholarship *1996*
Canadian Library Association

1994 Alexander Rutherford Scholarship *1994*
Provincial Government of Alberta

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 (3 credits) 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
Zoology