

CURRICULUM VITAE
MAREN N. VITOUSEK

Assistant Professor • Department of Ecology and Evolutionary Biology
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EDUCATION

Ph.D.	Princeton University	Ecology and Evolutionary Biology	2008
M.A.	Princeton University	Ecology and Evolutionary Biology	2004
B.A.	Amherst College	Biology (<i>magna cum laude</i> , dept. honors)	2002

PROFESSIONAL APPOINTMENTS

Assistant Professor Cornell University, Department of Ecology and Evolutionary Biology	2016-present
Senior Research Associate Cornell University, Department of Neurobiology and Behavior	2013-15
Postdoctoral Researcher and Chancellor's Postdoctoral Fellow University of Colorado, Department of Ecology and Evolutionary Biology	2008-12
International Postdoctoral Fellow Max Planck Institute, Department of Immunoecology and Migration	2008-09

PUBLICATIONS

Kelly AM, and **Vitousek MN**. 2017. Dynamic modulation of sociality and aggression: an examination of plasticity within endocrine and neuroendocrine systems. *Philosophical Transactions of the Royal Society of London B*. In press.

Vitousek MN, Jenkins BR, Hubbard JK, Kaiser SA, and Safran RJ. 2017. An experimental test of the effect of brood size on glucocorticoid responses, parental investment, and offspring phenotype. *General and Comparative Endocrinology*. In press.

Vitousek MN, and Schoenle L. 2017. Hormones and behavior: A life history perspective. *The Oxford Handbook on Evolutionary Psychology and Behavioral Endocrinology* (Eds: Welling LLM, Shackleford TK). In press.

Vitousek MN, Tomášek O*, Albrecht T, Wilkins M*, and Safran RJ. 2016. Signal traits and oxidative stress: a comparative study across populations with divergent signals. *Frontiers in Ecology and Evolution* 4:56.

Taff CC, and **Vitousek MN**. 2016. Endocrine flexibility: optimizing phenotypes in a dynamic world? *Trends in Ecology and Evolution* 31(6): 476-488.

Wiebe KL, and **Vitousek MN**. 2015. Melanin plumage ornaments in both sexes of Northern Flicker are associated with body condition and predict reproductive output independent of age. *The Auk* 132(2): 507-517.

Vitousek MN, Jenkins BR*, and Safran RJ. 2014. Stress and success: individual differences in the glucocorticoid stress response predict behavior and reproductive success under high predation risk. *Hormones and Behavior* 66: 812-819.

Jenkins BR*, **Vitousek MN**, Hubbard JK*, and Safran RJ. 2014. An experimental analysis of the heritability of variation in glucocorticoid concentrations in a wild avian population. *Proceedings of the Royal Society of London B* 281: 20141302.

Vitousek MN, Zonana D*, and Safran RJ. 2014. An integrative view of the signaling phenotype: dynamic links among signals, physiology, behavior, and social context. *Current Zoology* 60(6): 739-754.

Safran RJ, and **Vitousek MN**. 2014. Ecological and evolutionary connections among morphology, physiology, and behavior. *Current Zoology* 60(6): 736-738.

Vitousek MN, Stewart RA, and Safran RJ. 2013. Female plumage color influences seasonal oxidative damage and testosterone profiles in a songbird. *Biology Letters* 9: 20130539. (**Highlighted in Science 'Editor's Choice'**)

Vitousek MN and Romero LM. 2013. Stress responsiveness predicts individual variation in mate selectivity. *General and Comparative Endocrinology* 187: 32-38.

Jenkins BR*, **Vitousek MN**, and Safran RJ. 2013. Signaling stress? An analysis of pheomelanin-based plumage color and individual corticosterone levels at two temporal scales in North American barn swallows, *Hirundo rustica erythrogaster*. *Hormones and Behavior* 64: 665-672.

Vitousek MN, Dor R, and Safran RJ. 2012. Sexual selection: Climatic carry-over. *Current Biology* 22(2): R61-63.

Vitousek MN and Maldonado G**. 2011. Predation of Galápagos marine iguanas (*Amblyrhynchus cristatus*), *Herpetological Review* 42(3): 425.

Vitousek MN, Mitchell MA, Romero LM, Awerman J**, and Wikelski M. 2010. To breed or not to breed: physiological correlates of reproductive status in a facultatively biennial iguanid. *Hormones and Behavior* 57: 140-146. (**Recommended by Faculty of 1000**)

- Safran RJ, **Vitousek MN**, Hauber M, and Ghalambor CK. 2010. Sexual selection: a dynamic state of affairs. Response to the comments of Cornwallis and Uller in the article: Towards an evolutionary ecology of sexual traits. *Trends in Ecology and Evolution* 25(8): 429-430.
- Vitousek MN**, Romero LM, Tarlow E, Cyr NR, and Wikelski M. 2010. Island Tameness: An altered cardiovascular stress response in Galápagos marine iguanas. *Physiology and Behavior* 99: 544-548. (**Featured with cover photo**).
- Lanterbecq D, Glaberman S, **Vitousek MN**, Steinfartz S, Benavides E, Wikelski M, and Caccone A. 2010. Genetic differentiation between marine iguanas from different breeding sites on the island of Santa Fe (Galápagos Archipelago). *Journal of Heredity* 101(6): 663-675. (**Featured with cover photo**)
- Vitousek MN**. 2009. Investment in mate choice depends on resource availability in female Galápagos marine iguanas (*Amblyrhynchus cristatus*). *Behavioral Ecology and Sociobiology* 64(1): 105-113.
- Safran RJ and **Vitousek MN**. 2008. Evolutionary biology: arms races in the eye of the beholder. *Current Biology* 18(17): R734-736.
- Vitousek MN**, Rubenstein DR, Nelson KS, and Wikelski M. 2008. Are hotshots always hot? A longitudinal study of hormones, behavior, and reproductive success in male marine iguanas. *General and Comparative Endocrinology* 157: 227-232.
- Vitousek MN**, Mitchell MA, Woakes AM, Niemack MD, and Wikelski M. 2007. High costs of female choice in a lekking lizard. *PLoS ONE* 2(6): e567.
- Vitousek MN**, Adleman JS, Gregory N, and St Clair JJH**. 2007. Heterospecific alarm call recognition in a non-vocal reptile. *Biology Letters* 3(6): 632-634. (**Reported in Nature's 'Research Highlights' and in Science**).
- Vitousek MN**, Rubenstein DR, and Wikelski M. 2007. The evolution of foraging behavior in the Galápagos marine iguana: natural and sexual selection on body size drives ecological, morphological, and behavioral specialization. In: *Lizard Ecology* (Reilly SM, McBrayer LD, and Miles DB, Eds). Cambridge University Press, pp. 491-507.
- Berger S, Martin LB II, Wikelski M, Romero LM, Kalko EKV, **Vitousek MN**, and Rödl T. 2005. Corticosterone suppresses immune activity in territorial Galápagos marine iguanas during reproduction. *Hormones and Behavior* 47 (4): 419-429.
- Temeles EJ, Muir AB, Slutsky EB, and **Vitousek MN**. 2004. Effect of food reductions on territorial behavior of Purple-throated Caribs. *Condor* 106(3): 691-695.
- Vitousek KM, Manke FP, Gray JA, and **Vitousek MN**. 2004. Caloric restriction for longevity: II- The systematic neglect of behavioral and psychological outcomes in animal research. *European Eating Disorders Review* 12(6): 338-360.

IN REVIEW OR REVISION:

Vitousek MN, Taff CC, Hallinger KK, Zimmer C, and Winkler DW. Hormones and fitness: sex differences and trade-offs in optimal glucocorticoid flexibility. *In review*.

Stedman JM, Hallinger KK, Winkler DW, and **Vitousek MN**. Heritable variation in glucocorticoid flexibility in a free-living passerine. *In review*

Hallinger KK, **Vitousek MN**, and Winkler DW. Context-dependent fitness reversal in tree swallows (*Tachycineta bicolor*) of extra-pair and within-pair parentage. *In revision*.

Wikelski M, Chevalier BH, **Vitousek MN**, Hegel GV, and Trillmich F. Active hypothermia in Galápagos marine iguanas (*Amblyrhynchus cristatus*) during an El Niño famine. *In revision*.

INVITED BOOK REVIEWS AND POPULAR SCIENCE ARTICLES:

Vitousek MN. 2017. Opening the black box – mechanisms, evolution, and the theory of the individual. A review of: Integrative Organismal Biology (Eds: Martin, LB, Ghalambor, CK, and Woods HA). *Ecology*. In press.

Vitousek MN and Zimmer C. 2016. Tree swallows: windows into changing environments. *Wrangell Mountain Hardware Store Herald, Alaska*.

Vitousek MN. 2009. Shrinking iguanas: adaptations to a changing climate. *Galápagos News*, Fall/Winter 2009: 7-9.

Vitousek MN and Wikelski M. 2007. Review of *Galápagos: The Islands That Changed the World* by Paul D. Stewart. *Quarterly Review of Biology* 82(4): 432.

Vitousek MN. 2004. Poaching in the Galápagos. *Let's Go Ecuador, 1st Edition*.

** *Undergraduate or postgraduate student co-author*, **Graduate student co-author*

FELLOWSHIPS, GRANTS AND AWARDS

In review (listed by date of submission):

- 2016- National Geographic Society: Deciphering the causes and consequences of cuckoo recognition by hosts (Co-PI; PI: William Feeney, additional Co-PI: Christy Riehl).
2017 DARPA Young Faculty Award (PI; proposed: \$897,771).

Awarded:

- 2016-17 National Science Foundation: Meeting: Advancing the Accessibility of Behavioral Research in the 21st Century (Co-PI; PI: Mike Webster, additional Co-PIs: Ed Scholes, David Winkler; \$49,038).
- 2015-19 National Science Foundation: Collaborative Research: Coping with Stress: Integrating hormones, behavior, gene expression, and fitness (PI; \$490,000 to MV; linked collaborative research award to Dan Ardia \$59,957).
- 2014 Einhorn Discovery Grant (to undergraduate Jocelyn Stedman: \$1000)
- 2014 Undergraduate Research Fund Award (to undergraduate Jocelyn Stedman: \$300)
- 2014, 15 Nancy Horton Bartels Scholarship Awards (to undergraduates Jocelyn Stedman and Alison Buermeyer: \$9600)
- 2014 Biology Research Fellowship (to undergraduate Dan Margolin: \$4000)
- 2013 SILS Matching Fellowship (to undergraduates Michael Jessel and Jocelyn Stedman: \$2000)
- 2013 Cornell Lab of Ornithology Undergraduate Research Fellowship (to undergraduate Sarah Newman: \$3000)
- 2011 Selected participant of Women Evolving the Biological Sciences Symposium (WEBS), NSF ADVANCE program at NESCent
- 2010 Chancellor's Postdoctoral Fellowship, University of Colorado, Boulder (\$10,000)
- 2010 Dorothy M. Skinner Award, Society for Integrative and Comparative Biology (SICB). One award given annually for "outstanding scholarship with high potential for continued excellence in research"
- 2008-09 Max Planck International Postdoctoral Fellowship (\$55,000)
- 2008 Best Student Talk, Society for Integrative and Comparative Biology, Animal Behavior
- 2007 Charlotte Magnum Student Grant, Society for Integrative and Comparative Biology (\$175)
- 2007 Association of Princeton Graduate Alumnae Travel Fellowship (\$600)
- 2004-07 National Science Foundation Graduate Research Fellowship (\$90,000)
- 2004-06 Princeton University Graduate Fellowship Prize (\$9,000)
- 2004 Association of Princeton Graduate Alumnae Travel Fellowship (\$600)
- 2004 Society for Integrative and Comparative Biology Grant-in-Aid of Research (\$1,000)
- 2004 Sigma Xi Grant-in-Aid of Research (\$1,000)
- 2003 Princeton Latin American Studies Research Grant (\$2000)
- 2002-08 Princeton University Graduate Fellowship (\$72,000; 3 years)
- 2002 Princeton Latin American Studies Research Grant (\$1500)
- 2001 Five-College Coastal and Marine Sciences Fellowship (\$2,800)
- 2001 Howard Hughes Summer Research Fellowship (\$1,500)

TEACHING EXPERIENCE

- 2017S Co-Instructor, *Evolution and Diversity (BIOEE 1780)*, Cornell University
- 2016F Co-Instructor, *Evolution and Diversity (BIOEE 1780)*, Cornell University
- 2014F Co-Instructor, *Introduction to Behavior (BIONB 2210)*, Cornell University
- 2014F Guest Lecturer, *Graduate Survey in Neurobiology and Behavior (BIONB 7210)*, Cornell
- 2014F Instructor/Mentor: *Undergraduate Research in Biology (BIOG 4990)*, Fall: 8 students
- 2014S Instructor/Mentor: *Undergraduate Research in Biology (BIOG 4990)*, Spring: 6 students

- 2014S Guest Lecturer: *Evolution (BIOEE 1780)*, Cornell University
- 2014S Guest Lecturer: *Darwin and the Galapagos*, University of Wyoming
- 2013F Instructor/Mentor: *Undergraduate Research in Biology (BIOG 4990/2990)*, Fall: 4 students
- 2013F Co-Instructor, *Introduction to Behavior (BIONB 2210)*, Cornell University
- 2013F Guest Lecturer, *Graduate Survey in Neurobiology and Behavior (BIONB 7210)*, Cornell
- 2011 Co-Instructor, *Ecology and Physiological Stress*, University of Colorado (graduate course)
- 2011 Co-Instructor, *The Physiology of Sexual Selection*, University of Colorado (graduate course)
- 2007 Teaching Assistant, *Animal Behavior*, Princeton University
- 2007 Teaching Assistant, *Evolution and the Behavior of the Sexes*, Princeton University
- 2007 Guest Lecturer: Sexual Selection, *Evolution and the Galápagos Islands*, Princeton University
- 2006 Teaching Assistant, *Forensic Anthropology*, Princeton University
- 2005 Teaching Assistant, *Coral Reef Ecology* (field course in Panama), Princeton University
- 2002 Teaching Assistant, *Adaptation and the Organism*, Amherst College
- 2001 Teaching Assistant, *Adaptation and the Organism*, Amherst College
- 2001 Teaching Assistant, *Ecology*, Amherst College

MENTORING AND ADVISING

- 2016- Avi Pinals (undergraduate research advisor, Cornell)
- 2016- Lyra Liu (undergraduate research advisor, Cornell)
- 2016- Garrett Levesque (undergraduate research advisor, Cornell)
- 2016- Joe Colcombe (undergraduate research advisor, Cornell)
- 2016- Cedric Zimmer (postdoctoral research advisor, Cornell)
- 2015- Alyssa Rodriguez (undergraduate research advisor, Cornell)
- 2015- Lauren Smith (undergraduate research advisor, honors thesis advisor, Cornell)
- 2015- Eric Alerte (undergraduate research advisor, Cornell)
- 2015- Stephanie Aguilon (graduate committee member, Ecology and Evolutionary Biology, Cornell)
- 2015- Jay Falk (graduate committee member, Neurobiology and Behavior, Cornell)
- 2015- Conor Taff (postdoctoral research advisor, Cornell Lab of Ornithology)
- 2014- Collin Dickerson (undergraduate research advisor, Cornell)
- 2014- Joe Welklin (graduate committee member, Neurobiology and Behavior, Cornell)
- 2013- Kelly Hallinger (graduate committee member, Ecology and Evolutionary Biology, Cornell)
- 2013- Sophie Nicolich-Henkin (undergraduate research advisor, honors thesis advisor, Cornell)
- 2015 Joseph Byington (undergraduate research advisor, Cornell)
- 2015 Jacob Kolenda (undergraduate research advisor, Cornell)
- 2014-15 Jackson Walker (undergraduate research advisor, Cornell)
- 2014-15 Alison Buermeyer (undergraduate research advisor, Cornell)
- 2014-15 Dan Margolin (undergraduate research advisor, Cornell)
- 2014 Nicholas Shepard (undergraduate research advisor, Cornell)
- 2013-15 Jocelyn Stedman (undergraduate research advisor, honors thesis advisor, Cornell) – winner of the Cynthia Kagarise Sherman Award for Best Undergraduate Thesis in Behavior, Department of Neurobiology and Behavior
- 2013-15 Sara Gonzalez (Presidential Research Scholar mentor, Cornell)

- 2013-15 Sarah Talamantes (undergraduate research advisor, Cornell)
 2013-15 Teresa Pegan (undergraduate research mentor, Cornell)
 2013-14 Jenna Hoots (undergraduate research advisor, Cornell)
 2010-13 Brittany Jenkins (graduate committee member, University of Colorado)
 2009 Katarzyna Chmiel (undergraduate independent study, University of Colorado)
 2004-06 Mauricio Rivadeneira (*Licentiate* thesis, Pontifica Universidad Católica, Ecuador)
 2003-05 Gabriela Maldonado (*Licentiate* thesis, Pontifica Universidad Católica, Ecuador)

SELECTED PRESENTATIONS

- 2017 Society for Integrative and Comparative Biology, New Orleans, LA
 2016 International Society for Avian Endocrinology, Ontario, Canada
 2016 North American Ornithological Conference, Washington DC
 2015 *Invited Seminar*, Virginia Tech, Department of Biological Sciences
 2015 *Invited Talk*, Symposium: Endocrine Control of Behavior, 34th International Ethological Conference, Cairns, Australia
 2015 *Invited Seminar*, University of California, Davis, Department of Neurobiology, Physiology, and Behavior
 2015 *Invited Seminar*, University of Michigan, Department of Ecology and Evolutionary Biology
 2015 *Invited Seminar*, Cornell University, Department of Neurobiology and Behavior
 2015 *Invited Seminar*, University of Ottawa, Department of Biology
 2014 *Invited Seminar*, University of Nebraska, Lincoln, School of Biological Sciences
 2014 *Invited Seminar*, Lehigh University, Department of Biological Sciences
 2014 *Invited Seminar*, University of New Orleans, Department of Biological Sciences
 2014 *Invited Seminar*, University of Wyoming, Department of Zoology and Physiology
 2014 *Invited Seminar*, Queens University, Evolution, Ecology, and Behavior
 2014 Society for Integrative and Comparative Biology
 2012 *Invited Seminar*, Brno University of Technology, Czech Republic
 2012 *Invited Seminar*, Cornell University, Department of Neurobiology and Behavior
 2012 *Invited Seminar*, University of Washington, Department of Biology
 2012 *Invited Talk*, Symposium: Phenotypic Variation and Fitness, North American Ornithological Congress, Vancouver, Canada
 2012 Society for Integrative and Comparative Biology, Charleston, SC
 2011 Guild of Rocky Mountain Ecologists and Evolutionary Biologists, Ward, CO
 2010 Society for Integrative and Comparative Biology, Seattle, WA
 2009 *Invited Keynote*: “Sex, stress, and survival: how stress physiology can inform ecology, evolution, and conservation”, Guild of Rocky Mountain Ecologists and Evolutionary Biologists, Ward, CO
 2009 Society for Integrative and Comparative Biology, Boston, MA
 2008 Society for Integrative and Comparative Biology, San Antonio, TX
 2007 *Invited Talk*: Intl. Congress of Comparative Physiology and Biochemistry, Salvador, Brazil
 2006 Animal Behavior Society, Snowbird, UT
 2006 Fifth Northeast Workshop on Comparative Physiological Ecology, Boston, MA
 2006 Society for Integrative and Comparative Biology, Orlando, FL

- 2004 Animal Behavior Society, Oaxaca, Mexico
2004 Third Northeast Workshop on Comparative Physiological Ecology, Princeton, NJ

REFEREE WORK

- Grants:** National Science Foundation – Pre-proposal panelist 2014
National Science Foundation – Ad hoc reviewer 2013, 2016
National Geographic Society – 2016
Melon-Kieckhefer Grants (Cornell) – 2016
- Journals:** *Amphibia-Reptilia*, *Animal Behavior*, *The Auk*, *Behavioral Ecology*, *Behaviour*, *Current Zoology*, *Ethology*, *Functional Ecology*, *Herpetologica*, *Hormones and Behavior*, *Integrative and Comparative Biology*, *Journal of Animal Ecology*, *Journal of Zoology*, *PLoS ONE*, *Philosophical Transactions of the Royal Society*, *Physiological and Biochemical Zoology*, *Proceedings of the Royal Society of London B*.
- Guest Editing:** *Current Zoology* Special Issue - 2014: ‘Ecological and evolutionary feedbacks between physiology, morphology, and behavior’ (with R. Safran)
- Editorial Board:** Review Editor for Behavioral and Evolutionary Ecology, *Frontiers in Ecology and Evolution*.

PRESS COVERAGE OF RESEARCH

- 2013 *Biology Letters* paper on plumage color influencing physiology: Coverage included *Science* (‘Editor’s Choice’), *PBS- Nova*, *The Daily Camera*, *Cornell Chronicle*, *Science Daily*, and *the Environmental News Network*.
- 2013 Interviewed in David Attenborough’s *Galapagos 3D*
- 2012 *Scientific American*: “Eavesdropping iguanas use mockingbird calls to survive” – J. Goldman
- 2010 Podcast and Radio Interview on Marine Iguanas: *Encyclopedia of Life*, *National Public Radio*, *Smithsonian* ‘Today’s Catch’ (<http://education.eol.org/podcast/marine-iguana>)
- 2007 *Biology Letters* paper on heterospecific eavesdropping (Vol 3(6): 632-643): Extensive coverage including in *Nature* ‘Research Highlights’, *Science*, *Royal Society Science News*, *New Scientist*, *Washington Post*, *Journal of Experimental Biology*, *Natural History Magazine*
- 2007 *PLoS ONE* paper on the cost of mate choice (Vol 2(6): e567): Coverage included the *Los Angeles Times*, *Canadian Broadcasting Corporation*, *MSNBC* (TV and online), *Yahoo News*, *Science Daily*, *New York Sun*, *Miami Herald*, *Fox News*, *Vancouver Sun*, *Huffington Post*

BROADER IMPACTS AND SERVICE

- 2016-17 EEB Graduate Admissions Committee
2016 – Faculty Sponsor, Sigma Xi Research Society, Cornell Chapter
2014 – Undergraduate Major Advisor, Cornell
2016 Reviewer, Mellon-Kieckhefer Grants
2017 Judge, Student Presentation Awards, Society for Integrative and Comparative Biology

- 2016 Scientific consultant for the BBC's *Galapagos* production
- 2016 Panelist, Women in Science "Tea Time," Cornell
- 2016 Judge, Student Presentation Awards, North American Ornithological Conference
- 2014-16 Freshman Faculty Advisor, Cornell
- 2014 Volunteer Walk Leader, Kids Discover the Trail, Cornell Lab of Ornithology
- 2014 Consulted on article for National Geographic Kids
- 2012-13 Scientific consultant for David Attenborough's *Galapagos 3D*
- 2012 Judge, Student Presentation Awards, Society for Integrative and Comparative Biology
- 2012 Served on the Amherst College Society of the Alumni Nominating Committee
- 2011 Science Reviewer for *Highlights Children's Magazine*
- 2011 Presenter and Exhibit Co-Developer, CU Natural History Museum, 'All About Birds' Family Days
- 2011 Skinner Award Selection Committee, Society for Integrative and Comparative Biology
- 2010 Skinner Award Selection Committee, Society for Integrative and Comparative Biology
- 2010 Judge, Student Presentation Awards, Society for Integrative and Comparative Biology
- 2010 Featured Scientist on Encyclopedia of Life's 'Meet the Scientists'
- 2010 Judge, Roche Colorado Regional Science Fair
- 2009 Judge, Student Presentation Awards, Society for Integrative and Comparative Biology
- 2008-11 Presenter at GAMES (Girls at the Museum Exploring Science), a program that encourages scientific interest and exposure in disadvantaged elementary-school girls

PROFESSIONAL AFFILIATIONS

Society for Integrative and Comparative Biology, International Society for Behavioral Ecology, Animal Behavior Society, American Ornithologists Union, Sigma Xi Scientific Research Society, Association of Field Ornithologists
