

KAY E. HOLEKAMP

Curriculum Vitae

CONTACT:

Department of Integrative Biology
288 Farm Lane, Room 203 Natural Sciences
Michigan State University
East Lansing, Michigan, 48824-1115
Phone: 517-432-3691; Fax: 517-432-2789
Email: holekamp@msu.edu

WEB PAGES

<http://hyenas.zoology.msu.edu/>
<http://msuhyenas.blogspot.com/>
<http://www.hyaenidae.org/>

EDUCATION

Ph.D. University of California (1983) Berkeley, California

A.B. (Cum Laude, with High Honors) (1973) Smith College, Northampton,
Massachusetts

PROFESSIONAL APPOINTMENTS

Director, Interdisciplinary program in Ecology Evolutionary Biology and Behavior.
Michigan State University, East Lansing, Michigan (2009-present)

Professor, Department of Integrative Biology (formerly Zoology), Michigan State
University East Lansing, Michigan (1999-present)

Associate Professor, Department of Zoology, Michigan State University
East Lansing, Michigan (1995-1999)

Associate Curator of Mammals, Michigan State University Museum
East Lansing, Michigan (1993-Present)

Assistant Professor, Department of Zoology, Michigan State University
East Lansing, Michigan (1992-1995)

Research Assistant Professor, Department of Psychology,
Michigan State University, East Lansing, Michigan (1991-1992)

Research Associate, Department of Ornithology and Mammalogy,
California Academy of Sciences, San Francisco, California (1987-1991)

N.R.S.A. Postdoctoral Fellow in the Department of Biology,
University of California, Santa Cruz, California (1983-86)

Supervisor of undergraduate research in Behavioral Ecology, Department of Biology,
University of California, Santa Cruz, California (1984-87)

Teaching Assistant, University of California, Berkeley, California (1977-81)

Research Assistant, University of California, Berkeley, California (1978-81)

Amazon River guide and interpreter, Parador Ticuna
Leticia, Amazonas, Colombia (1973-74)

Keeper, Small Mammal Division and Children's Zoo, St. Louis Zoo.
St. Louis, Missouri (1969, 1970, 1971, 1972)

HONORS AND AWARDS

Elected to Honorary Membership in the American Society of Mammalogists (the
Society's highest honor) (2016)

Inducted as a Fellow of the American Academy of Arts and Sciences (2015)

Recipient of the Smith College Medal, Smith College, Northampton, MA (2013)

Elected as a Fellow, American Association for the Advancement of Science (2013)

Named University Distinguished Professor, Michigan State University (2009)

College of Natural Science Distinguished Faculty Award, Michigan State University
(2007)

University Distinguished Faculty Award, Michigan State University (2006)

C. Hart Merriam Award for outstanding research in mammalogy from the American
Society of Mammalogists (2005)

Elected as a Fellow of the Animal Behavior Society (2001)

College of Natural Science Outstanding Academic Advisor Award, Michigan State
University (2001)

Teacher-Scholar Award, Michigan State University (1998)

Teacher-Scholar Award, College of Natural Science at Michigan State University (1997)

Recipient of Distinguished Teaching Award, University of California, Berkeley (1982)

Election to Phi Beta Kappa (1973)

Election to Sigma Xi (1973)

GRANTS AND FELLOWSHIPS

NSF grant proposal (IOS) "Selection for general intelligence by novel environments" 1/1/2017-12/31/20. Principal Investigator: Kay E. Holekamp. Co-PI: Elise F. Zipkin. Pending.

Lakeside Foundation award (2016) "Causes and consequences of altered predator communities in the Masai Mara National Reserve. December, 2015.

NSF Grant OISE 1556407 (International Research Experience for Students) (7/1/2016-6/30/2019) "IRES: Behavioral ecology of African carnivores." Principal Investigator: Kay E. Holekamp.

NSF Grant DEB 1353110 (April, 2014-March, 2019) "LTREB RENEWAL: Fitness consequences of pleiotropic androgen effects in free-living mammals." Principal Investigator: Kay E. Holekamp; Co-PIs: Jacinta Beehner & Barry Williams.

NSF Grant OIA 0939454 (Science and Technology Centers) (August, 2015-July, 2020) "BEACON: An NSF Center for the Study of Evolution in Action - Renewal" Principal Investigator: Erik Goodman; CO-PIs: Kay E. Holekamp, Richard E. Lenski, Charles A. Ofria, and Robert T. Pennock.

NIH Grant Number: 1R01GM105042 (2013-2017) "The Role of Emotion and Communication in Cooperative Behavior." Principal Investigator: Risto Miikkulainen; Co-PI: Kay E. Holekamp.

NSF Grant OISE-1260768 (International Research Experience for Students) (2013-2016) "IRES: Behavioral ecology of African carnivores." Principal Investigator: Kay E. Holekamp.

NSF Grant IOS 1121474 (Animal Behavior) (August 2011-July 2016) "Mediation of rank-related maternal effects on males throughout the lifespan" Principal Investigator: Kay E. Holekamp; Co-PIs: Barbara L. Lundrigan and Kim T. Scribner.

NSF Grant OIA 0939454 (Science and Technology Centers) (August, 2010-July, 2015) "BEACON: An NSF Center for the Study of Evolution in Action" Principal Investigator: Erik Goodman; CO-PIs: Kay E. Holekamp, Richard E. Lenski, Charles A. Ofria, and Robert T. Pennock.

NSF Grant IOS 0819437 (Organism-Environment Interactions) (2008-2013) "LTREB: Fitness consequences of pleiotropic androgen effects in free-living mammals." Principal Investigator: Kay E. Holekamp; Co-PIs: Jeffrey A. French, Stephen E. Glickman and Kim T. Scribner.

NIH Grant 2T32MH070343-06. "The Integrative Neurobiology of Social Processes." (2004-2014) Principal Investigator: M. Breedlove. Holekamp was one of eight training faculty.

NSF Grant IOS 0965840 (International Research Experience for Students) (2010-2012) "IRES: Behavioral ecology of African carnivores." Principal Investigator: Kay E. Holekamp.

NSF Grant IOB 0920505 (Animal Behavior) (2009-2012) "A Symbiotic Approach to the Study of Animal Communication." Principal Investigator: Kevin R. Theis; Co-PIs: Kay E. Holekamp and Thomas Schmidt.

Discretionary Funding Initiative award from the Vice President for Research and Graduate Studies at Michigan State University (2011-2012) "Maternal rank effects on males after dispersal." Principal Investigator Kay E. Holekamp.

NSF Grant IOS 0809914 (Neural Systems) (2008-2010) "SGER: Support of research involving captive spotted hyenas." Principal Investigator: Stephen E. Glickman; Co-PIs: Kay E. Holekamp, Nancy G. Forger and Geert J. deVries.

NSF Grant IOB 0618022 (Animal Behavior) (2006-2010) "Exploring the roles of competition and constraint in the evolution of mammalian behavior." Principal Investigator: K.E. Holekamp; Co-PIs: Barbara L. Lundrigan, Miriam Zelditch, and Kim T. Scribner.

Army Research Office award for ARO Proposal No.54320-LS-II, Agreement No.W911NF-08-1-0310. "Novel Mechanisms of Pathogen Resistance." 1 November 2008- 31 July 2009. Principal Investigator: Kay E. Holekamp; Co-PIs: Linda Mansfield and Stephen E. Glickman.

Research Fellowship from the John Simon Guggenheim Memorial Foundation (2006).

IRGP award from the Office of the Vice President for Research and Graduate Studies at Michigan State University (2005-2006) "Frontal Cortex and Social Complexity: A Comparative Study using Computed Tomography." Principal Investigator: Sharleen Sakai, CO-PIs: Kay E. Holekamp & Barbara L. Lundrigan.

NSF Grant IBN 0343381 (Animal Behavior) (2004-2007) "Mammalian behavioral development under contrasting regimes of interspecific competition" Principal Investigator: Kay E. Holekamp; Co-PIs: Laura Smale and Jeffrey A. French.

NSF Grant IBN 0113170 (LTREB: Animal Behavior) (2001-2006) "Integrated study of behavioral and morphological development in free-living carnivores" Principal Investigator: Kay E. Holekamp; Co-PIs: Barbara L. Lundrigan and Kim T. Scribner..

NSF Grant IBN 9906445 (Animal Behavior) (1999-2003: current) "Mammalian sibling rivalry" Principal Investigator: Kay E. Holekamp; Co-PIs: Laura Smale, Stephen E. Glickman, and Jeffrey A. French.

International Studies Program, Michigan State University (1998): Development of new field course in Kenya entitled "The Behavioral Ecology of African mammals."

NSF Grant IBN 9630667 (Animal Behavior) (1996-2000) "The evolution of intelligence in response to social complexity." Principal Investigator: Kay E. Holekamp; Co-PIs: Laura Smale, and Marlene Zuk.

Searle Scholarship (1994-98)

David and Lucille Packard Fellowship for Science and Engineering (1993-1999)
\$500,000.

NSF Grant IBN 9309805 (Animal Behavior) (1993) "Rank and reproduction in free-living spotted hyenas." Principal Investigator Kay E. Holekamp, CO-PI: Laura Smale. Amount

NSF Grant BNS 9021461 (Animal Behavior) (1990) "Coalitions, dispersal, and mating in free-living spotted hyenas, *Crocuta crocuta*." Principal Investigator: Kay E. Holekamp; Co-PIs: Laura Smale, and Laurence G. Frank.

Charles A. Lindbergh Fund Grant (1989).

NSF Grant BNS 8706939 (Psychobiology) (1987) "Behavioral development in spotted hyenas, *Crocuta crocuta*." Principal Investigator: Kay E. Holekamp; Co-PI: Laurence G. Frank.

National Research Service Award Postdoctoral Fellowship from the National Institutes of Health (1983)

Bache Fund Grant from the National Academy of Sciences (1982)

Grant from the Lerner-Gray Fund for Marine Research of the American Museum of Natural History (1982; declined)

Sigma Xi Grant-in aid-of-research (1979)

NSF Doctoral Dissertation Improvement Grant (BNS 80-20080) (1979)

American Association of University Women Graduate Fellowship (1979)

U. C. Chancellor's Patent Fund Research Grant (1979)

Phi Beta Kappa Scholarship (1978)

NSF Graduate Fellowship (1974)

PEER-REVIEWED PUBLICATIONS (total= 136 published or in press)

Lehmann, K.D.S., Montgomery, T.M., MacLachlan S.M., Parker, J.M., Spagnuolo, O.S., VandeWetering, K., Bills, P.S. & **Holekamp, K.E.** (2016) Lions, hyenas and mobs (oh my!). Current Zoology. doi: 10.1093/cz/zow073

Lewin, N., Swanson, E.M., Williams, B. L. & **Holekamp, K.E.** (2016) IGF-1 concentrations during early life predict life-history trade-offs in a wild mammal. Functional Ecology. In press.

Smith, J.E., Lehmann, K.D.S., Montgomery, T.M., Strauss, E.D & **Holekamp, K.E.** (2016) Insights from long-term field studies of mammalian carnivores. Journal of Mammalogy. In Press.

Yoshida, K.C.S., Van Meter, P.E. & **Holekamp, K.E.** (2016) Variation among free-living spotted hyenas in three personality traits. Behaviour. DOI:10.1163/1568539X-00003367.

Flies, A.S., Mansfield, L. S., Johnston-Flies, E. S., Grant, C. K. & **Holekamp, K. E.** (2016). Social rank predicts immune defenses in a long-lived wild carnivore. Functional Ecology. doi: 10.1111/1365-2435.12638

Benson-Amram, S., Dantzer, B., Stricker, G., Swanson, E.M. & **Holekamp, K. E.** (2016) Brain size predicts problem-solving ability in mammalian carnivores. PNAS 113: 2532-2537. www.pnas.org/cgi/doi/10.1073/pnas.1505913113

Theis, K. R., Venkataraman, V., Wagner, A.P., **Holekamp, K. E.** & Schmidt, T.M. (2015) Age-related variation in the scent pouch bacterial communities of striped hyenas (*Hyaena hyaena*). In B. Schulte, T. Goodwin & M. Ferkin (Eds.), Chemical Signals in Vertebrates. 13: 87-103.

Flies, A.S., Mansfield, L.S., Grant, C.K., Weldele, M.L., & **Holekamp, K.E.** (2015) Markedly elevated antibody responses in wild versus captive spotted hyenas show that environmental and ecological factors are important modulators of immunity. PLoS1. Oct 7;10(10):e0137679 DOI: 0.1371/journal.pone.0137679

Ilany, A., Booms, A. S. & **Holekamp, K. E.** (2015) Structural constraints on long-term social network dynamics in a wild mammal. Ecology Letters. 18: 687–695.

doi: 10.1111/ele.12447

Smith, J. E., Estrada, J.R., Richards, H.R., Dawes, S.E., Mitsos, K. & **Holekamp, K.E.** (2015) Collective movements, leadership, and consensus costs at reunions in spotted hyaenas. Animal Behaviour. 105: 187-200, Doi: 10.1016/j.anbehav.2015.04.023

Holekamp, K.E., Dantzer, B., Stricker, G., Yoshida, K.C.S. & Benson-Amram, S. (2015) Brains, brawn and sociality: a hyaena's tale. Animal Behaviour. 103: 237-248. DOI: 10.1016/j.anbehav.2015.01.023

Lewin, N., Treidel, L. A., **Holekamp, K. E.**, Place N.J., & Hausmann, M.F. (2015) Socioecological variables predict telomere length in wild spotted hyenas. Biology Letters. Volume 11 20140991. DOI:10.1098/rsbl.2014.0991.

Gersick, A.S., Cheney, D.L., Schneider, J. M., Seyfarth, R. M. & **Holekamp, K. E.** (2015) Long-distance communication facilitates cooperation among spotted hyenas (*Crocuta crocuta*). Animal Behaviour. 103: 107-116.

Jones, S. C., Strauss, E. D. & **Holekamp K. E.** (2015) Ecology of African Carrion. Pp. 459-489 in Carrion Ecology, Evolution, and Their Applications. M. E. Benbow, J. K. Tomberlin, & A. M. Tarone (Eds). CRC Press. Boca Raton, FL.

Curren L. J., Linden, D.W., Heinen, V. K., McGuire, M. C., & **Holekamp, K. E.** (2015). The functions of male-male aggression in a female-dominated mammalian society. Animal Behaviour 100: 208-216.

Green, D. S., Roloff, G.J., Heath, B. R. & **Holekamp, K. E.** (2015) Temporal dynamics of the responses by African mammals to prescribed fire. Journal of Wildlife Management. 79: 235–242, DOI: 10.1002/jwmg.827

Benson-Amram, S., Heinen, V., Gessner, A., Weldele, M. L., & **Holekamp, K. E.** (2014) Limited social learning of a novel technical problem by spotted hyenas. Behavioural Processes. 109: 111–120

Rajagopalan, P., **Holekamp, K.E.**, & Miikkulainen, R. (2014) The evolution of general intelligence. Proceedings of The Fourteenth International Conference on the Synthesis and Simulation of Living Systems (ALIFE'14, New York, NY).

Rajagopalan, P., Rawal, A., **Holekamp, K.E.**, & Miikkulainen, R. (2014) General intelligence through prolonged evolution of densely connected neural networks. Proceedings of the 2014 Genetic and Evolutionary Computation Conference (GECCO-2014), Vancouver, Canada

Flies, A.S., Maksimoski, M., Mansfield, L. S., Weldele, M. L., & **Holekamp, K.E.** (2014). Characterization of toll-like receptors 1-10 in spotted hyenas. Veterinary Research Communications. 38(2):165-170. DOI: 10.1007/s11259-014-9592-3

Swanson, E.M., McElhinny, T. L., Dworkin, I., Weldele, M.L., Glickman, S. E. & **Holekamp, K. E.** (2013) Ontogeny of sexual size dimorphism in the spotted hyena (*Crocuta crocuta*). Journal of Mammalogy. 94: 1298-1310. DOI: <http://dx.doi.org/10.1644/12-MAMM-A-277.1>

Theis, K.R., Venkataraman, A., Dycus, J. A., Koonter, K.D.S., Schmitt-Matzen, E.N., Wagner, A.P., **Holekamp, K.E.**, & Schmidt, T.M (2013) Symbiotic bacteria appear to mediate hyena social odors. Proceedings of the National Academy of Sciences of the United States of America 110: 19832–19837. <http://www.pnas.org/cgi/doi/10.1073/pnas.1306477110>

Nelson, K.G., Engh, A.L., McKnight, C. A. Kiupel, M., Wise, A.G., Maes, R.K., Rector, A., Stevens, H., Heylen, E., De Keyser, K., Van Ranst M., Flies, A.S. & **Holekamp, K. E.** (2013). Papillomavirus-associated cutaneous papillomas in a population of wild spotted hyenas (*Crocuta crocuta*). Journal of Wildlife Diseases 49: 627-631

Holekamp, K. E., Van Meter, P. E. & Swanson, E.M. (2013) Developmental constraints on behavioral flexibility. Philosophical Transactions of the Royal Society B. Vol. 368, No 1618, 20120350. (doi:10.1098/ rstb.2012.0350) (published May 2013)

Califf, K. J, Ratzloff, E.L., Wagner, A.P., **Holekamp, K. E.**, & B.L. Williams. (2013) Pervasive gene duplication and positive selection at MHC loci in two hyena species. Journal of Mammalogy 94(2):282-294. DOI: 10.1644/12-MAMM-A-054.1

Benson-Amram, S. R., Weldele, M. L. & **Holekamp, K. E.** (2013) A comparison of innovative problem-solving abilities between wild and captive spotted hyenas (*Crocuta crocuta*). Animal Behaviour. 85: 349-356.

Stevens, H., Heylen, E., De Keyser, K., Maes, R., Kiupel, M., Wise, A., Nelson, K., **Holekamp, K. E.**, Engh, A., McKnight, C., Van Ranst, M., & Rector, A. (2013) Complete genome sequence of the *Crocuta crocuta* papillomavirus type 1 (CcrPV1) of a spotted hyena: the first papillomavirus characterized in a member of the Hyaenidae. Genome Announcements. 1(1):e00062-12. doi:10.1128/genomeA.00062-12.

Curren, L. J., Weldele, M. L., Glickman, S. E. & **Holekamp, K. E.** (2013) Ejaculate quality in a wild carnivore: intraspecific variation in relation to life history traits. Journal of Mammalogy. 94: 90-99.

Theis, K. R., Schmidt, T. M. & **Holekamp, K. E.** (2012) Evidence for a bacterial mechanism for group-specific social odors among hyenas. Nature Scientific Reports 2, 615; DOI:10.1038/srep00615.

Swanson, E.M., **Holekamp, K. E.**, Lundrigan, B. L., Arsznov, B. & Sakai, S.T. (2012) Multiple determinants of brain size and brain architecture in mammalian carnivores.

PloS One. 7: 1-11. e38447. doi:10.1371/journal.pone.0038447.

Benson-Amram, S. & **Holekamp, K. E.** (2012). Innovative problem solving by wild spotted hyenas. Proceedings of the Royal Society, London B. 279: 4087-4095. doi: 10.1098/rspb.2012.1450

Flies, A. S., Grant, C. K., Smith, E. J., Mansfield, L. S., Glickman, S. E., Weldele, M. L., & **Holekamp, K. E.** (2012) Development of a hyena immunology toolbox. Veterinary Immunology and Immunopathology. 145:110–119. DOI: 10.1016/j.vetimm.2011.10.016

Holekamp, K.E., Smith, J. E., Strelhoff, C. C., Van Horn, R.C. & Watts, H. E. (2012) Society, demography and genetic structure in the spotted hyena. Molecular Ecology. 21: 613–632. DOI: 10.1111/j.1365-294X.2011.05240.x.

Smith, J. E., Swanson, E. M., Reed, D. & **Holekamp, K.E.** (2012) Evolution of cooperation among mammalian carnivores and its relevance to hominins. Current Anthropology. 53: Supplement 6, S436-S452.

Rawal, A., Rajagopalan, P., Miikkulainen, R., & **Holekamp, K. E.** (2012). Evolution of a Communication Code in Cooperative Tasks. Artificial Life 13: 243-250.

Swanson, E.M., Dworkin, I. & **Holekamp, K. E.** (2011) Lifetime selection on a hypoallometric size trait in the spotted hyena. Proceedings of the Royal Society of London B. 278: 3277–3285. DOI 10.1098/rspb.2010.2512.

Sakai, S.T, Arsznov, B. M, Lundrigan, B.L. & **Holekamp, K. E.** (2011) Brain size and social complexity: A computed tomography study in Hyaenidae. Brain, Behavior and Evolution. 77:91-104. DOI: 10.1159/000323849.

La Croix, S., **Holekamp, K. E.**, Shivik, J. A., Lundrigan, B. L., & Zelditch, M. L. (2011) Ontogenetic relationships between cranium and mandible in coyotes and hyenas. Journal of Morphology. 272: 662-674. DOI: 10.1002/jmor.10934

Watts, H. E, Scribner, K. T., Garcia, H. A. & **Holekamp, K. E.** (2011) Genetic diversity and structure in two spotted hyena populations reflects social organization and male dispersal. Journal of Zoology, London. 285: 281-291. DOI: 10.1111/j.1469-7998.2011.00842.x

La Croix, S., Zelditch, M. L., Shivik, J. A., Lundrigan, B. L., & **Holekamp, K. E.** (2011). Ontogeny of feeding performance and biomechanics in coyotes and hyenas. Journal of Zoology, London. 285: 301-315. doi:10.1111/j.1469-7998.2011.00847.x

Rajagopalan, P., Rawal, A., Miikkulainen, R., Wiseman, M. A. & **Holekamp, K. E.** (2011) The role of reward structure, coordination mechanism and net return in the evolution of cooperation. 2011 IEEE Conference on Computational Intelligence and Games. Pp. 258-265.

Benson-Amram, S., Heinen, V.K., Dryer, S. L. & **Holekamp, K. E.** (2011) Numerical assessment and individual call discrimination by wild spotted hyaenas, *Crocuta crocuta*. Animal Behaviour. 82: 743-752. doi:10.1016/j.anbehav.2011.07.004.

Sakai, S.T, Arsznov, B. M, Lundrigan, B.L. & **Holekamp, K. E.** (2011) Virtual endocasts: an application of computed tomography in the study of brain variations in hyenas. Annals of the New York Academy of Sciences. 1225: E160-E170. DOI 10.1111/j.1749-6632.2011.05988.x

Place, N. E., Coscia, E. M., Dahl, N. J., Drea, C. M., **Holekamp, K. E.**, Roser, J. F., Sisk, C. L., Weldele, M. L. & Glickman, S. E. (2011) The anti-androgen combination, flutamide plus finasteride, paradoxically suppressed LH and androgen concentrations in pregnant spotted hyenas, but not in males. General and Comparative Endocrinology. 170: 455-459.

Smith, J. E., Powning, K.S., Dawes, S. E., Estrada, J. R., Hopper, A. L., Piotrowsky, S. L. & **Holekamp, K. E.** (2011) Greetings promote cooperation and reinforce social bonds among spotted hyaenas. Animal Behaviour. 81: 401-415.

Jenson, K. Silk, J. B., Andrews, K., Bshary, R., Cheney, D. L., Emery, N., Hemelrijk, C. K., **Holekamp, K. E.**, Penn, D.C., Perner, J., & Teufel, C. (2011) Social knowledge. In Animal Thinking: Contemporary Issues in Comparative Cognition. (Randolf Menzel & Julia Fischer, Eds.) MIT Press. Pp 267- 291

Arsznov, B. M., Lundrigan, B.L., **Holekamp, K. E.** & Sakai, S. T. (2010) Sex and the frontal cortex: a developmental study in the spotted hyena. Brain, Behavior and Evolution. 76: 185-197.

Watts, H. E., Blankenship, L. M., Dawes, S.E. & **Holekamp, K. E.** (2010). Responses of spotted hyenas to lions reflect individual differences in behavior. Ethology. 116:1199-1209.

Holekamp, K. E. & Dloniak, S. M. (2010) Intra-specific variation in the behavioral ecology of a tropical carnivore, the spotted hyena. In *Behavioral Ecology of Tropical Animals: From Ants to Zebras* (R. Macedo, Ed.) Advances in the Study of Behavior. 42: 189-229. DOI: 10.1016/S0065-3454(10)42006-9

Pangle, W. M. & **Holekamp, K. E.** (2010) Age-related variation in threat-sensitive behavior exhibited by spotted hyenas: Observational and experimental approaches. Behaviour. 147: 1009-1033.

Tanner, J. B., Zelditch, M. L., Lundrigan, B. L., & **Holekamp, K. E.** (2010). Ontogenetic change in skull morphology and mechanical advantage in the spotted hyena (*Crocuta crocuta*). Journal of Morphology. 271: 353-365.

Pangle, W. M. & **Holekamp, K. E.** (2010) Functions of vigilance behavior in a social carnivore, the spotted hyaena, *Crocuta crocuta*. Animal Behaviour. 80: 257-267.

Smith, J.E., Van Horn, R.C., Powning, K.S., Cole, A.R., Graham, K.E., Memenis, S.K., & **Holekamp, K.E.** (2010) Evolutionary forces favoring intragroup coalitions among spotted hyenas and other animals. Behavioral Ecology. 21: 284-303.
doi:10.1093/beheco/arp181

Pangle, W. M & **Holekamp, K. E.** (2010) Lethal and non-lethal anthropogenic effects on spotted hyenas in the Masai Mara National Reserve. Journal of Mammalogy. 91:154-164.

Holekamp, K. E. & Engh, A. L. (2009) Reproductive skew in female-dominated mammalian societies. In Reproductive Skew in Vertebrates: proximate and ultimate causes. R. Hager and C.B. Jones (Eds.) Cambridge University Press, Cambridge. Pp 53-83.

Watts, H. E, Tanner, J. B., Lundrigan, B. L & **Holekamp, K.E.** (2009). Post-weaning maternal effects and the evolution of female dominance in the spotted hyena. Proceedings of the Royal Society of London B. 276: 2291-2298.

Holekamp, K. E. & Dloniak, S. M. (2009) Maternal effects in fissiped carnivores. In Maternal Effects in Mammals. D. Maestripieri and J. Mateo (Eds.) University of Chicago Press, Chicago. Pp 227-255.

Watts, H. E. & **Holekamp, K. E.** (2009) Ecological determinants of survival and reproduction in the spotted hyena. Journal of Mammalogy. 90:461-471.

Lansing, S.W., Cooper, S. M., Boydston, E.E. & **Holekamp, K. E.** (2009) Taphonomic and zooarchaeological implications of spotted hyena (*Crocuta crocuta*) bone accumulations in Kenya: a modern behavioral ecological approach. Paleobiology 35: 289-309.

Kolowski, J. M. & **Holekamp, K. E.** (2009) Ecological and anthropogenic influences on space use by spotted hyaenas (*Crocuta crocuta*). Journal of Zoology, London. 277: 23-36.

Van Meter, P. E., French, J. A., Dloniak, S. M., & **Holekamp, K. E.** (2009) Fecal glucocorticoids reflect socio-ecological and anthropogenic stressors in the lives of wild spotted hyena. Hormones and Behavior. 55: 329- 337. doi:10.1016/j.yhbeh.2008.11.001

Watts, H. E. & **Holekamp, K. E.** (2008) Interspecific competition influences reproduction in spotted hyenas. Journal of Zoology, London. 276: 402-410.

Tanner, J. B., Dumont, E. R. Sakai, S. T., Lundrigan, & **Holekamp, K. E.** (2008) Of arcs and vaults: the biomechanics of bone-cracking in spotted hyenas (*Crocuta crocuta*).

Biological Journal of the Linnean Society. 95: 246-255.

Aureli, F., Schafner, C.M., Boesch, C., Bearder, S.K., Call, J., Chapman, C.A., Conner, R., Difiore, A., Dunbar, R. I. M., Henzi, S. P., **Holekamp, K. E.**, Korstjens, A. H., Layton, R.H., Lee, P., Leymann, J., Manson, J.H., Ramos-Fernandez, G., Strier, K.B., Van Schaik, C.P. (2008) Fission-Fusion Dynamics: New Research Frameworks. Current Anthropology. 49:627-654.

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Holekamp, K. E. (2010) Spotted hyenas: misunderstood indicators of ecosystem health? Swara 33: 34-37.

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Holekamp, K. E. (1997) Book review of Carnivore behavior ecology, and evolution: volume two, edited by J. L. Gittleman. Quarterly Review of Biology. 72: 212.

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INVITED LECTURES

2017: Columbia University, Department of Ecology, Evolution & Environmental Biology. New York, NY.

2017: Capstone Lecture, American Society of Mammalogists annual meeting, University of Idaho, Moscow, ID

2016: University of Zurich, Zurich, Switzerland

2016: Bowling Green State University, Bowling Green, OH

2015: Convergent Minds Conference, Boston University
 2014: Washington State University, Pullman WA
 2014: Presidential Symposium, Annual meeting of the Animal Behavior Society, Princeton, NJ.
 2014: Plenary speaker: Conference on African Large Carnivores: impacts on ecosystems and humans interactions. Nairobi, Kenya
 2014: Bucknell University, Lewisburg, PA.
 2014: National Institute for Mathematical and Biological Synthesis (NIMBioS), University of Tennessee, Knoxville, TN.
 2013: Integrative Biology, University of California, Berkeley, CA.
 2013: Plenary speaker. Student Conference on Conservation Science. Bangalore, India.
 2013: Presidential Symposium, Annual meeting of the Society for the Study of Evolution, Salt Lake City, UT.
 2013: Psychology, University of California, Berkeley, CA.
 2013: Arizona State University, Tempe, AZ
 2013: University of Michigan, Dearborn, MI
 2013: Smith College, Northampton, MA
 2013: University of Illinois, Urbana-Champaign, IL.
 2012: Integrative Biology, University of California, Berkeley, CA.
 2012: Michigan State University, EEBB seminar, E. Lansing, MI
 2011: University of Gottingen, Gottingen, Germany
 2011: Plenary speaker: International Congress on 'Hominid-carnivore interactions during the Pleistocene.' Salou, Tarragona, Spain
 2011: University of Connecticut, London, CT
 2011: University of Tennessee, Knoxville, TN
 2011: International Ethological Conference, Symposium on Social Complexity, Bloomington, IN
 2010: Georgetown University, Washington, DC
 2010: University of Michigan, Ann Arbor, MI
 2010: University of Rennes, Rennes, France
 2010: University of Guelph, Guelph, Ontario, Canada
 2010: Whitney R. Harris World Ecology Center at the University of Missouri-St. Louis
 2009: University of Idaho, Moscow, ID
 2009: Hope College, Holland MI.
 2009: Rutgers University, Newark, NJ. (Lectures on both evolution of intelligence and women in science)
 2009: The Oregon Zoo, Portland, OR.
 2009: University of Arizona, Tucson, AZ. (Lectures to both Cognitive Science program and Environmental Biology)
 2009: Danforth Plant Science Center, St Louis, MO,
 2009: University of Utah, Salt Lake City, UT.
 2008: Tel Aviv University, Tel Aviv, Israel
 2008: Boston University, Boston, MA.
 2008: Binder Park Zoo, Kalamazoo, MI.
 2008: The Santa Fe Institute. Symposium on social inequity, Santa Fe, NM.
 2008: Simon Fraser University, Vancouver, BC.
 2008: University of Michigan, Ann Arbor, MI.
 2007: University of Nebraska, Lincoln, NE.
 2007: Miami University, Oxford, OH.
 2007: University of Nebraska, Omaha, NE.
 2006: University of California, Davis, CA.

2006: University of California, Los Angeles, CA.
 2006: Annual meeting of the American Society of Mammalogists, Keynote speaker: C. Hart Merriam Award recipient. Amherst, MA.
 2006: The Royal Society, Symposium on social intelligence. London, U.K.
 2006: University of California, Berkeley, CA. (2 talks at UCB, in 2006 in Feb & Oct)
 2005: Duke University, Durham, NC.
 2005: University of Kentucky. Keynote speaker: Research Symposium at the Center for Ecology, Evolution and Behavior, Lexington, KY.
 2005: Eastern Michigan University, Ypsilanti, MI.
 2005: University of Miami, Miami, FL
 2005: Potter Park Zoo, Lansing, MI.
 2005: Western Michigan University. Kalamazoo, MI.
 2004: University of California, Berkeley, CA.
 2004: Utah State University, Logan, UT.
 2004: International Society of Primatologists annual meeting. Symposium on fission-fusion societies, Torino, Italy.
 2004: Michigan State University EEBB Program, E. Lansing, MI.
 2004: Smith College, Northampton, MA.
 2004: Sam Houston State University. The E.O. Wiley Lecture. Huntsville, TX.
 2004: University of British Columbia, The Dennis H. Chitty Lecture. Vancouver, BC.
 2003: Indiana University, Bloomington, IN.
 2003: National Academy of Sciences, Conference on management of laboratory animals. Washington, DC.
 2003: Emory University, Atlanta, GA.
 2002: Brazilian Ethological Society, Plenary speaker. Congress of the Brazilian Ethological Society Natal, Brazil.
 2002: University of Massachusetts, Symposium on "The role of sex differences in health and disease." Amherst, MA.
 2002: University of Minnesota, Graduate student selection for 2002 Distinguished Speaker in Ecology, Evolution & Behavior. Minneapolis. MN.
 2002: Central Michigan University, MI
 2002: Oregon State University, Corvallis, OR.
 2002: Humboldt State University, Arcata, CA.
 2001: Purdue University, Lafayette, IN.
 2001: International Ethology Congress, Symposium on Non-genetical inheritance. Tübingen, Germany.
 2000: Zoological Society of San Diego, San Diego, CA.
 2000: University of Missouri, World Ecology Day. Sponsored by the International Center for Tropical Ecology. St. Louis, MO.
 2000: Lehigh University, Bethlehem, PA.
 1999: Midwest Animal Behavior Society Meeting, Symposium on Parental investment. Bowling Green, OH.
 1998: Rutgers University, Newark, NJ.
 1998: Special symposium: Contributions by outstanding women mammalogists. American Society of Mammalogists annual meeting, Blacksburg, VA.
 1998: Special symposium: Behavioral endocrinology in natural contexts. Society for Behavioral Neuroendocrinology annual meeting. Emory University, Atlanta, GA.
 1998: The Ohio State University, Columbus, OH.
 1998: Texas A and M University, Galveston, TX.
 1997: The Johns Hopkins University, Baltimore, MD.
 1997: Winter Animal Behavior Conference. Jackson Hole, WY.

1996: St Louis Zoological Society Guest Lecture Series, St Louis, MO.
1996: Conference on Steroid Hormones and Behavior, Workshop on Steroid Hormones and Brain Function. Breckenridge, CO.
1996: University of Toledo Medical School, Toledo, OH.
1995: Wayne State University, Detroit, MI.
1995: Winter Animal Behavior Conference. Jackson Hole, WY.
1995: University of Utah. Salt Lake City, UT.
1994: Cornell University. Ithaca, NY.
1994: Charles and Anne Morrow Lindbergh Foundation. Little Falls, MN.
1994: David and Lucille Packard Foundation. Monterey, CA.
1993: Conference on Reproductive Behavior. Twenty fifth anniversary celebration. East Lansing, MI.
1993: University of Missouri. St. Louis, MO.
1992: East African Natural History Society, Nairobi, Kenya.
1992: University of Kansas. Lawrence, KS.
1992: University of Minnesota. Minneapolis, MN.
1992: University of Wisconsin. Madison, WI.
1991: National Museums of Kenya. Nairobi, Kenya.
1991: State University of New York. Stony Brook, NY.
1990: National Museums of Kenya. Nairobi, Kenya.
1989: University of Nairobi. Nairobi, Kenya.
1989: Centennial Meeting, Animal Behavior Symposium, American Society of Zoologists. Boston, MA.
1988: University of California. Berkeley, CA.
1986: University of California. Santa Cruz, CA.
1985: University of Nevada. Reno, NV.
1984: International Symposium on Migration: Mechanisms and Adaptive Significance. Port Aransas Marine Laboratory, Port Aransas, TX.
1984: International Symposium on the Biology of Sciurid Rodents. Banff, Alberta, Canada.

RESEARCH EXPERIENCE

2015-present: Michigan State University, East Lansing (with E. F. Zipkin). Selection for general intelligence by novel environments.

2014-present: Michigan State University, East Lansing (with B. Williams and D. Dolinoy from the University of Michigan). Epigenetic mediation of adult behavior.

2012-2014: Michigan State University, East Lansing (with C. Adami & A. Hintz) Game theoretical modeling of the emergence of social stratification & its impacts on health.

2010-present: Michigan State University, East Lansing (with R. Mikulainen at the University of Texas and B. Kerr at the University of Washington): Study of the role of communication and emotion in coordination of group cooperative activities in biological and digital organisms.

2009-Present: Michigan State University, East Lansing (with K. R. Theis, now at Wayne State University & T. Schmidt, now at the University of Michigan): Study of symbiotic

relationships between spotted hyenas and the various bacteria that inhabit their scent glands as these affect chemical communication.

2007-2013: Michigan State University, East Lansing (with L. Mansfield, P. Fraker & J. Tsao): Development of the spotted hyena as a new model of pathogen resistance.

2004-2014: Michigan State University, East Lansing (with S. Sakai & B. L. Lundrigan): Testing the 'social brain' hypothesis in carnivores using computed tomography.

2002-2010: Michigan State University, East Lansing (with L. Smale & J. A. French) Effects of contrasting regimes of interspecific competition on mammalian behavioral development.

2001-Present: Michigan State University, East Lansing (with K. T. Scribner) Molecular genetic analysis of relatedness among free-living spotted hyenas.

2001-Present: Michigan State University, East Lansing (with B. L. Lundrigan & M. L. Zelditch) Integrated study of behavioral and morphological development in African carnivores.

1999-2004: Michigan State University, East Lansing (with L. Smale, S. E. Glickman, and J. French) Field Study of sibling rivalry in mammals.

1996-Present: Michigan State University, East Lansing (with L. Smale, A. L. Engh & S. R. Benson-Amram) Field Study of the evolution of intelligence in gregarious mammals.

1994-2005: Michigan State University, East Lansing (with S. Nunes & E. M. Muecke) Field study of physiological and energetic variables influencing the probability and timing of dispersal behavior in free-living Belding's ground squirrels (*Spermophilus beldingi*).

1994-1998: Michigan State University, East Lansing. (with C. Salsbury & T. McElhinny) A laboratory study of causes & consequences of dispersal in a diurnal, group-living rodent (*Arvicanthis niloticus*).

1993-1996. Michigan State University, East Lansing (with L. Smale) Field study of social and ecological influences on reproductive success in free-living spotted hyenas (*Crocuta crocuta*).

1991-1996. Michigan State University, East Lansing (with L. Smale) Field study of reproduction, dispersal patterns, and mating system in free-living spotted hyenas (*Crocuta crocuta*).

1988-1991. California Academy of Sciences, San Francisco (with L. Smale and L. G. Frank). Developmental study of rank acquisition and sexually dimorphic behavior in spotted hyenas (*Crocuta crocuta*).

1989-91. Charles A. Lindbergh Fund-supported study of the impact of tourist vehicles on survival, reproduction, and behavior in free-living spotted hyenas and other large carnivores inhabiting the Masai Mara National Reserve, Kenya.

1983-87. University of California, Santa Cruz. NRSA postdoctoral fellow investigating endocrine influences on sexually dimorphic reproductive behaviors in free-living California ground squirrels (*Spermophilus beecheyi*).

1982-83. University of California, Santa Cruz. Research fellow in the endocrinology laboratory of F. Talamantes, investigating regulation of secretion of placental lactogen in *Mus musculus*.

1979-81. University of California, Berkeley. Doctoral dissertation research investigating proximal causes of natal dispersal behavior in free-living Belding's ground squirrels (*Spermophilus beldingi*).

1977-83. University of California, Berkeley (with S. E. Glickman and B. L. Ivins). Comparative study of the behavioral ecology and social systems of two California populations of dusky-footed woodrats (*Neotoma fuscipes*).

1972-73. Smith College (with D. B. Reutener). Undergraduate honors thesis research developing a captive ethogram for neotropical murine opossums (*Marmosa murina*).

SOCIETY MEMBERSHIPS

American Academy of Arts and Sciences
American Association for the Advancement of Science
American Association of University Women
American Society of Mammalogists
American Women in Science
Animal Behavior Society
International Society for Behavioral Ecology
Phi Beta Kappa
Sigma Xi
Society for Behavioral Neuroendocrinology
Society for the Study of Evolution

TEACHING AND RESEARCH INTERESTS

Behavioral Ecology
Ethology
Behavioral Endocrinology
Mammalogy
Evolutionary Ecology

COURSES TAUGHT AT MICHIGAN STATE UNIVERSITY

Fall semester, 2016: ZOL801: Issues in Professional Development
 Fall semester, 2015: ZOL822: Epigenetic mediation of complex phenotypes
 Fall semester, 2014: ZOL801: Issues in Professional Development
 Fall semester, 2012: ZOL801: Issues in Professional Development
 Fall semester, 2011: ZOL822: Evolution of Animal Social Behavior
 Fall semester, 2010: ZOL801: Issues in Professional Development
 Fall semester, 2009: ZOL801: Issues in Professional Development
 Guest lecture in LBS133
 Spring semester, 2009: UGS200H: Freshman Honors seminar (with Barb Lundrigan)
 "Comparative analysis of carnivore skull development"
 Fall semester, 2008: ZOL801: Issues in Professional Development
 UGS200H: Freshman Honors seminar (with Barb Lundrigan)
 "Comparative analysis of carnivore skull development"
 Fall semester, 2007: ZOL801: Issues in Professional Development (with Catherine Lindell)
 Fall and spring semesters 2006-7: on sabbatical
 Fall semester, 2005: ZOL313: Introduction to Animal Behavior
 ZOL801: Issues in Professional Development
 Fall semester, 2004: ZOL313: Introduction to Animal Behavior
 ZOL822: Graduate Seminar: Animal Social Complexity
 Fall semester, 2003: ZOL313: Introduction to Animal Behavior
 Fall semester, 2002: ZOL313: Introduction to Animal Behavior
 ZOL822: Graduate Seminar: Classic papers in Animal Behavior
 (co-taught with Heather Eisthen)
 Summer semester, 2002: ZOL490 Behavioral Ecology of African Mammals.
 Fall semester, 2001: ZOL313: Introduction to Animal Behavior
 Fall semester, 2000: ZOL313: Introduction to Animal Behavior
 ZOL822: Graduate Seminar in Animal Behavior (co-taught with Heather Eisthen)
 Summer semester, 1999: ZOL490: The Behavioral Ecology of African Mammals.
 (Co-taught with Barbara Lundrigan)
 Fall semester, 1998: ZOL/LBS148H: Introductory Organismal Biology for Honors students
 ZOL489: The Biology of Mammalian Carnivores
 Fall semester, 1997: ZOL/LBS148H: Introductory Organismal Biology for Honors students
 ZOL822: Graduate Seminar in Animal Behavior
 Fall semester, 1996: ZOL365: The Biology of Mammals
 ZOL890: The Biology of Migratory Organisms
 Fall semester, 1995: ZOL365: The Biology of Mammals
 ZOL890: Behavioral Mechanisms in Evolutionary Ecology
 Fall semester, 1994: ZOL365: The Biology of Mammals
 Spring Semester, 1994: ZOL360: The Biology of Birds and Mammals (co-taught with Donald Beaver)
 Fall Semester, 1993: ISB202: Ecology and Behavior: An Introductory Organismal Biology Course for Non-Majors.

Multiple guest lectures each year in courses offered in Zoology, Plant Biology, Fisheries and Wildlife, including field courses in Kenya.

COURSES TAUGHT ELSEWHERE

University of California, Berkeley: Fall semester, 2006: PSYCH 290. Integrated field & laboratory study in behavioral biology (a graduate seminar at UC Berkeley co-taught with Dr S. E. Glickman)

SERVICE

Member, IUCN Hyaena Specialist Group. 1989-2009 and 2016 – present.

Member, Global Advisory Board, Global Academy of Sciences, New Delhi, India 2015-present.

Member MSU Museum Director search committee 2014-2015.

Merriam award committee, American Society of Mammalogists 2012-2016.

Member, All-University Awards Committee, MSU, 2012-2014.

Member Departmental committee developing an Academic Program Review (APR) for Zoology 2013-14.

Member, Advisory Panel for the Carnivore Conservation Evidence Synopsis Project, based at Cambridge University, UK. 2012-present.

Director, interdisciplinary program in Ecology, Evolutionary Biology & Behavior. January 2009-present.

Editorial Advisory Panel Member for *Nature Communications*. 2010-2016.

Extensive work with public media each year, including BBC, PBS, Animal Planet, CNN, Big 10 Channel, National Geographic, New York Times, Smithsonian Magazine, and many others.

Member, MSU Museum Council, August 2010-present

Reviewer for: *Nature*, *PNAS*, *Journal of Mammalogy*, *Animal Behaviour*, *Behavioral Ecology*, *Acta Theriologica*, *Journal of Zoology London*, *Hormones and Behavior*, *Behavioral Ecology and Sociobiology*, *Proceedings of the Royal Society*, and *Physiological Zoology*.

Member, Scientific Advisory Committee for the MSU Museum, 2004-present.

Chair, IUCN Hyaena Specialist Group. 2009 - 2016.

Member, Mammal Endangered Species Technical Advisory Committee to the Michigan Department of Natural Resources. 1996-present.

Director of Graduate Programs in Zoology, Michigan State University
1998-2006.

I developed and maintained the IUCN website on the family Hyaenidae at www.hyaenidae.org, 2007-present

With Barb Lundrigan, I co-organized the fall 2008 workshop on Geometric Morphometrics taught at MSU, & funded by one of our NSF grants.

Faculty advisor for *Kila Nafasi* Student Group (a charitable organization based at MSU dedicated to raising funds to educate Masai women; *Kila Nafasi* is Swahili for “Every Opportunity”), 2008-present.

Judge of student posters & oral presentations at the annual meeting of the American Society of Mammalogists, Springfield, MO. 2005.

Member, Animal Behavior Panel, IOB/IOS, National Science Foundation 2004 & 2007.
Associate Editor, *Animal Behaviour* 2001-2005.

Member, Animal Behavior Panel, IBN, National Science Foundation. 1997-2000.

Deputy chair, IUCN Hyaena Specialist Group. 2006 - present.

Advisor for Honors College undergraduates majoring in Zoology, Michigan State University 1997-present.

Member 1996-99, Women’s Advisory Council to the Provost, Michigan State University.

Co-chair, Women’s Advisory Council to the Dean of the College of Natural Science Michigan State University. 1998-1999.

Service on multiple search committees for new faculty and staff, as well as numerous ad hoc committees within the Department of Zoology.

External examiner for Ph.D dissertations: University of British Columbia (2001); University of Michigan (2008 & 2012); University of Pennsylvania (2009)

FORMER GRADUATE STUDENTS & POST-DOCS

Post-docs

C. Salsbury, Postdoc, PhD University of Kansas. Currently Professor and Chair of Biology at Butler University
S. M. Cooper, Postdoc, PhD University of Witwatersrand. Currently Associate Professor of Wildlife Biology at Texas A & M University
A. P. Wagner, PhD Montana State University, Currently working in the defense industry in Washington, DC.
A. M. Laurence, PhD University of Rennes.
A. Ilany, PhD Tel Aviv University. Currently an Assistant Professor of Biology at Bar-Ilan University in Israel.

Graduate Students

T. McElhinny, BS Michigan State University, MS, 1996, (PhD received in 2009) Currently a non tenure-track Assistant Professor in Science Education at MSU
S. Nunes, BS University of California at Santa Cruz, PhD 1997. (NSF Fellow) Currently Associate Professor of Biology at the University of San Francisco, San Francisco, CA.
E. E. Boydston, BS Duke University, PhD 2001, Currently a Research Biologist for the US Geological Survey in Irvine, CA
M. Szykman, BS Amherst College, PhD 2001. Currently an Associate Professor and Chair of Wildlife Biology at Humboldt State University, Arcata, CA.
A. L. Engh, BS Iowa State University, PhD 2002. (NSF Fellow) Currently an assistant professor of Biology at Kalamazoo College, Kalamazoo, MI.
K. Greene, BS Michigan State University, MS 2002. Currently raising children in Lansing, MI.
R. C. Van Horn, BS University of Minnesota, PhD 2003. Currently a Senior Research Biologist in Applied Animal Ecology, San Diego Zoo Institute for Conservation Research, San Diego, CA.
S. M. Dloniak, BS Northland College, PhD 2004. Currently a science writer and Chief Science Officer for Kenya Wildlife Trust in Nairobi, Kenya
S. A. Wahaj, BS University of Florida, PhD 2004. (NSF Fellow) Currently raising children and teaching high school in Seattle, WA.
E. M. Muecke, BS University of California, PhD 2005. Currently an Assistant Professor of Biology, Lewis and Clark College, Portland, OR.
J. M. Kolowski, BS Cornell University, MSc Southern Illinois University, PhD 2007. Currently Research Ecologist and Graduate/Professional Training Manager at the Smithsonian Institution, National Zoological Park Monitoring and Assessment of Biodiversity Program, Washington, DC.
H. E. Watts, BS Duke University, PhD 2007 (NSF fellow). Currently an Associate Professor of Biology at Loyola Marymount University, Los Angeles, CA.
J. B. Tanner, BS University of Massachusetts, PhD 2007. Currently a Professor of Biology at Marlboro College, Marlboro, VT.
K. R. Theis, BS State University of New York, PhD 2008. Currently an Assistant Professor in the Department of Immunology at the Wayne State University School of Medicine.
W. M. Pangle, BS McGill University, PhD 2008. Currently Adjunct Assistant Professor in Biology at Central Michigan University, Mt. Pleasant, MI.

P. E. Van Meter, BS Emory University, PhD 2009. Currently at the Anxiety Disorders Clinic, New York State Psychiatric Institute, Columbia University, New York, NY. Also Adjunct Science Faculty in Biology at Colorado Mountain College.

J. E. Smith, BS Colby College, MSc University of Illinois Urbana-Champaign, PhD 2010. Currently an assistant professor of Biology at Mills College, Oakland, CA.

S. LaCroix, BS University of Notre Dame. PhD 2011. Currently raising children in Michigan

S. R. Benson-Amram, BS Cornell University. PhD 2011. Currently an assistant professor of Zoology and Physiology at the University of Wyoming

B. Dantzer, BS, Northern Michigan University, MSc University of Louisiana, PhD 2012. Currently an assistant professor of Psychology & EEB at the University of Michigan. Ann Arbor.

R. W. Taylor, BS U. C. Berkeley PhD 2012. Currently a Post-doctoral Fellow at Stanford University.

K. C. S. Yoshida, BS Amherst College, PhD 2012. (NSF fellow). Currently curator of Biology at the Las Vegas Natural History Museum in Las Vegas, Nevada.

L. J. Curren, BS Amherst College, PhD 2012. Currently an assistant professor of Biology at the University of New Hampshire

A. S. Flies, BS Minnesota State University at Mankato, PhD 2012 (NSF fellow). Currently a post-doctoral research fellow at the University of South Australia.

E. M. Swanson, BS University of Minnesota, PhD 2013 (NSF fellow). Currently a NSF post-doc in Ecology & Evolution at the University of Minnesota

K. J. Califf, BS University of Washington, PhD 2013 (NSF fellow). Currently a post-doctoral fellow in Biology at Northern Arizona University.

T. M. Ikime, BS Moi University, MSc 2015, Currently a staff scientist at Kenya Wildlife Service, Nairobi, Kenya.

D. S. Green, BS Arizona State University, PhD 2015 (NSF fellow). Currently a postdoctoral scholar at the Institute for Natural Resources, Oregon State University.

CURRENT GRADUATE STUDENTS & POSTDOCS

A. S. Booms, BS Columbia University, PhD expected 2016

J. R. Greenberg, BS Carlton College, PhD expected 2017 (NSF fellow)

S. C. Jones, BS North Carolina State University, PhD expected 2017 (NSF fellow)

N. S. Lewin, BS Vassar College, PhD expected 2017 (NSF fellow)

J. W. Turner, BS Grinnell College, PhD expected 2017

K. D. S. Lehmann, BS University of California, Davis, PhD expected 2018 (NSF fellow)

E. D. Strauss, BS University of California, Berkeley, PhD expected 2018 (NSF fellow)

T. M. Montgomery, BS Amherst College, PhD expected 2019 (NSF fellow)

S. K. McCormick, BS University of New Mexico, PhD expected 2019 (NSF fellow)

Z. Laubach, MS University of Michigan. PhD expected 2019

L. Johnson-Ulrich, BS University of Miami, PhD expected 2020 (NSF fellow)

M. A. Sawdy, BS Smith College, PhD expected 2021 (NSF Fellow)

C. A. Rojas, BS Wellesley College, PhD expected 2021 (Ford Foundation Fellow)

ACADEMIC MENTORS

PhD mentors: Stephen E. Glickman and Roy L. Caldwell,
University of California at Berkeley
Other members of PhD dissertation guidance committee:
Frank A. Beach
David B. Wake
Postdoctoral mentor: Frank Talamantes, Department of Biology
University of California at Santa Cruz