

JAIME B. TANNER

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RESEARCH INTERESTS

Animal Behavior, Functional Morphology and Performance

PROFESSIONAL APPOINTMENTS

August 2008 - present Darwin Postdoctoral Fellow, University of Massachusetts, Organismic and Evolutionary Biology Program, Amherst, MA.

Spring 2008 Visiting Faculty, University of Hawaii, Zoology Department, Manoa, HI

EDUCATION

November 2007 Michigan State University, East Lansing, MI
Joint Ph.D. in Zoology and Ecology, Evolutionary Biology and Behavior

May 1998 University of Massachusetts, Amherst, MA
B.S. in Wildlife and Fisheries Conservation

PUBLICATIONS

- Watts, HE, **JB Tanner**, BL Lundrigan & KE Holekamp. *In Press*. Post-weaning maternal effects and the evolution of female dominance in the spotted hyena. In *Proceedings of the Royal Society B*.
- Tanner, JB**, L Smale & KE Holekamp (2007). Ontogenetic variation in the play behavior of spotted hyenas. *Journal of Developmental Processes*. 2(2):5-30.
- Tanner, JB**, ER Dumont, ST Sakai, BL Lundrigan & KE Holekamp (2008). Of Arcs and Vaults: The biomechanics of bone-cracking in spotted hyenas (*Crocuta crocuta*). *Biological Journal of the Linnean Society*. 95: 246-255.

MANUSCRIPTS IN REVIEW

- Tanner, JB**, ML Zelditch, BL Lundrigan & KE Holekamp. Ontogenetic change in skull morphology in the spotted hyena, (*Crocuta crocuta*).

AWARDS

- Darwin Postdoctoral Fellowship (2008-2010)
- College of Natural Science Excellence-In-Teaching Award (2007)
- Ecology, Evolutionary Biology & Behavior Program Summer Fellowship (2007)
- Sigma Xi Grant-in-Aid of Research (2006)
- Graduate School Travel Grant (2006)
- American Society of Mammalogists Grant-in-Aid of Research (2003)
- Graduate School Research Enhancement Award (2003)

RESEARCH PRESENTATIONS

- Tanner JB**, ER Dumont, BL Lundrigan, ST Sakai & KE Holekamp (2009). The role of the frontal sinus in bone-cracking in the spotted hyena. Society for Integrative and Comparative Biology (SICB) Annual Meeting, Boston, MA.
- Tanner, JB** & KE Holekamp (2008). Effects of social rank on feeding performance and morphology in spotted hyenas. 12th Congress of the International Society of Behavioral Ecology, Ithaca, NY.
- Tanner, JB**, L Smale & KE Holekamp (2007). Ontogenetic variation in the play behavior of The spotted hyena. 44th Annual Meeting of the Animal Behavior Society, Burlington, VT.
- Tanner, JB**, L Smale, KE Holekamp (2007). Hyenas at Play: Ontogenetic, sex and environmental influences. MSU Brain & Behavior Group, East Lansing, MI.
- Tanner, JB**, ML Zelditch, BL Lundrigan & KE Holekamp (2007). Ontogeny of feeding performance and skull morphology in the spotted hyena. Society for Integrative and Comparative Biology (SICB) Annual Meeting, Phoenix, AZ.
- Tanner, JB** (2006). Developmental changes in skull morphology and corresponding changes in feeding performance in the spotted hyena. SICB Northeast Regional Division of Vertebrate Morphology Meeting, Providence, RI.
- Tanner, JB**, BL Lundrigan & KE Holekamp (2006). Ontogenetic Change in Skull Morphology and Feeding Performance in the Spotted Hyena (*Crocuta crocuta*). 86th Annual Meeting of the American Society of Mammalogists, Amherst, MA.
- Holekamp, KE (presenter), HE Watts, **JB Tanner**. Growth and Development in Free-living Spotted Hyena (*Crocuta crocuta*). 85th Annual Meeting of the American Society of Mammalogists, Missouri State University, 2005.

INVITED SEMINARS

- Tanner, JB** (2008). Behavioral and morphological development in a female-dominated species, the spotted hyena. University of Massachusetts, Organismic and Evolutionary Biology Program, Darwin Seminar, Amherst, MA.
- Tanner, JB** (2008). Developmental changes in morphology and behavior in the spotted hyena. University of Hawaii, Zoology Seminar, Manoa, HI.

TEACHING EXPERIENCE

Lead Instructor

- Fall 2008 Evolution: Diversity of Life Through Time (BIO 280), UMass, (with Prof. Margery Coombs)
In this undergraduate course, geared towards sophomores and juniors, we cover material ranging from evolutionary theory to the evolutionary history of the main taxonomic groups of organisms. My lectures cover the evolutionary theory aspects of the course. 200 students.
- Fall 2008 Ecology and Evolutionary Biology Graduate Seminar (ORGEVBIO 697B), UMass
This seminar is composed of first year graduate students in the Organismic and Evolutionary Biology Program. I cover topics in professional development such as writing grants, giving talks, approaches to teaching undergraduates and generating scientific questions and hypotheses. 7 students.

TEACHING CONTINUED

Lead Instructor

- Spring 2008 Ethology, (ZOL 306), University of Hawaii
This course had both a lecture and lab component focusing on animal behavior from both mechanistic and evolutionary perspectives. The lectures included in-class activities and discussions and were geared towards juniors and seniors. 65 students.
- Summer 2006 Behavioral Ecology of African Mammals (ZOL 490), MSU Study Abroad in Kenya
This course was a three-week study abroad course in Kenya that focused on behavioral ecology. The course included lectures, field exercises, student research topics and included sophomore, junior and senior undergraduate students. As the lead instructor I was responsible for designing the academic program as well as managing the logistical aspects of the program. 18 students.

Laboratory Instructor/Teaching Assistant

- Fall 2007 Developmental Biology Laboratory (ZOL 320), MSU
In this lab course I guided students through identifying the development of structures in vertebrate embryos. Additionally I taught the students how to explant chick embryos and then trace and modify development in these embryos. ~23 students.
- Summer 2004, 2005 Behavioral Ecology of African Mammals (ZOL 490), MSU Study Abroad in Kenya
See description above.
- Spring 2002, 2003, 2006 The Biology of Mammals (ZOL 365), MSU
In this taxonomic lab junior and senior students studied and identified the skulls of mammals and learned about their lifestyles, behaviors and habitats. ~25 students
- Fall 2001, 2002, 2005 Ecology Laboratory (ZOL 355L), MSU
In this field lab I taught students how to collect ecological data in the field and how to design and carry out their own research projects. ~25 students.
- Summer 2007
1999-2000 Wildlife Management, The School for Field Studies in Kenya
This course was part of a semester-long study abroad program for students from universities across the U.S. I guided students through field exercises and advised them on individual research projects.

Guest Lectures

- “Behavioral Ecology and Life History Traits”, Ecology (ZOL 355), 2007.
 “Tropical Grasslands: The Serengeti-Mara Ecosystem”, Tropical Biology (ZOL 485), 2007.
 “Spotted Hyenas: Research at MSU”, MSU Fisheries & Wildlife Club, 2007.
 “Order Carnivora”, The Biology of Mammals (ZOL 365), 2006.
 “Behavioral Ecology of Spotted Hyenas”, Introductory Organismal Biology (BS 110), 2002.

Mentoring

I have supervised 12 undergraduate research assistants since 2002. This has included training in lab techniques, collecting morphological measurements and working with behavioral data.

RESEARCH EXPERIENCE

- July 2006 – Sept. 2007. Collected measurements from computed tomography (CT) scans of spotted hyena (*Crocuta crocuta*) skulls and generated 3D computer models of the skulls in order to quantify the developmental changes in the frontal sinus and in frontal cortex size under the supervision of Dr. Sharleen Sakai in the Psychology Department, Michigan State University.
- Sept. 2001 – Nov. 2007. Dissertation research data collection which included behavioral observations, morphological measurements and field experiments of free-living spotted hyenas (*Crocuta crocuta*) in the Masai Mara Game Reserve in Kenya as well as finite-element and geometric morphometric analyses of skull specimens at Michigan State University.
- Fall 2001, Summer 2002, June 2003- June 2005. Data collection on the behavioral ecology of free-living spotted hyenas (*Crocuta crocuta*) which included radio-tracking, collection of behavioral and demographic data, anaesthetizing hyenas, management of the research camp and training personnel for the Mara Hyena Project, Masai Mara Game Reserve, Kenya.
- Nov. 1998- May 1999. Conducted radio-tracking, necropsies and diet analysis of local carnivore species for the DEP Wildlife Division, Sessions Wildlife Management Area, Burlington, CT.
- Sept. 1996- Dec. 1996. Collected data on demography, herd movement, habitat choice and behavior of local oryx (*Oryx gazella beisa*) populations at the Center for Wildlife Management Studies, Kenya.

PROFESSIONAL SOCIETY MEMBERSHIPS

Sigma Xi Research Society
 Animal Behavior Society
 American Society of Mammalogists
 Society for Integrative and Comparative Biology

SERVICE

Reviewer for the journal *Behaviour*
 Reviewer for the *Journal of Mammalogy*
 Graduate Student Representative to Zoology Department Faculty Meetings (MSU, Fall 2002)

PUBLIC OUTREACH

- 2005 National Geographic Channel: (Appearance) "Dangerous Encounters: Bite Force"
- 2004 National Geographic Channel: (Consultant) "Be the Creature II: Expedition Spotted Hyena"
- 2004 BBC: (Appearance) "Really Wild Show: Hide-N-Seek"
- 2003 Wild Moments (NBC): (Appearance) "Spotted Hyenas"
- 2000-2005 "Spotted Hyenas - Dispelling the Myths" talk given to various student groups, tourists, and local teachers in the Masai Mara Game Reserve, Kenya
- 2002 "Animal Adaptations" presentation at the 13th Annual Math/Science Conference for 6th grade girls, East Lansing, MI