

Marion L East

Main topics of interest

Fitness consequences of social life

Maternal investment

Sexual conflict, mate choice and mating tactics

Host-pathogen interactions

Human-wildlife conflict

Academic Career

The Leibniz Institute of Zoo and Wildlife Research. Germany. 1999 – and currently. Research Scientist. Evolutionary Ecology Research Group.

The Max-Planck Institute for Behavioural Physiology, Germany. 1987-1999. Research Scientist. The behavioural ecology of spotted hyaenas in the Serengeti National Park, Tanzania.

Agricultural Research Council Postdoctoral Fellowship, the University of Aberdeen, Scotland. 1984-1987. Assessment of damage caused by avian pests to autumn sown barley.

National Environmental Research Council Postdoctoral Fellowship. Edward Grey Institute for Ornithology, University of Oxford, U.K. 1981-1984. Population dynamics of tits and other insectivorous woodland birds.

Ph. D. The University of Sussex, U.K. 1977-1981. The behavioural ecology of the robin (*Erithacus rubecula*).

Membership of scientific associations and related organisations

Association for the Study of Animal Behaviour, UK.

IUCN Hyaena Specialist Group

PhD & MSc Students

Current Students

Sarah Benhaiem

Katja Goller

Janine Helms

Veljko Nikolin

Gina Raihani

Previous

Regina Albert
Nicole Burgener
Traudi Golla
Wolfgang Goymann
Oliver Höner
Martin Loibooki
Julius Nyahongo
Ina Sämmang
Christian Teltscher
Bettina Wachter

Referee for:

African Journal of Ecology
Animal Behaviour
Behavioral Ecology
Behavioral Ecology and Sociobiology
Ethology
Mammalian Biology
South African Journal of Wildlife Research
The Proceedings of the Royal Society, London

Publications

Burgener N, Dehnhard M, Hofer H, East ML **2009**. Does anal gland scent signal identity in the spotted hyaena? *Animal Behaviour* **77**: 707-715.

East ML, Höner OP, Wachter B, Wilhelm K, Burke T, Hofer H **2009**. Maternal effects on offspring social status in spotted hyenas. *Behavioral Ecology* **20**: 478-483.

Hofer H, East ML **2008** Siblicide in Serengeti spotted hyenas: a long-term study of maternal input and cub survival. *Behavioral Ecology and Sociobiology* **62**: 341-351.

East ML, Wibbelt G, Lieckfeldt D, Ludwig A, Goller K, Wilhelm K, Schares G, Thierer D, Hofer H **2008**. A *Hepatozoon* species genetically distinct from *H.canis* infecting spotted hyenas in the Serengeti ecosystem, Tanzania. *Journal of Wildlife Diseases* **44**(1): 45-52.

Höner OP, Wachter B, East ML, Streich WJ, Wilhelm K, Burke T, Hofer H **2008**. Do female hyaenas choose mates based on tenure? Reply. *Nature* **454**: E2. doi:10.1038/nature07123.

Höner OP, Wachter B, East ML, Streich WJ, Wilhelm K, Burke T, Hofer H **2007** Female mate choice drives the evolution of male-biased dispersal in a social mammal. *Nature* **448**: 798-801.

Nyahongo, JW, East ML, Mturi FA, Hofer H **2006** Benefits and costs of illegal grazing and hunting in the Serengeti ecosystem. *Environmental Conservation* **32** 1-7.

Höner OP, Wachter B, Speck S, Wibbelt G, Ludwig A, Fyumagwa RD, Wohlsein P, Lieckfeldt D, Hofer H, East ML **2006** Severe Streptococcus infection in spotted hyenas in the Ngorongoro Crater, Tanzania. *Veterinary Microbiology* **115**: 223-228.

Höner OP, Wachter B, East ML, Runyoro VA, Hofer H **2005** The effect of prey abundance and foraging tactics on the population dynamics of a social, territorial carnivore, the spotted hyena. *Oikos* **108**: 544-554.

Borchers K, Frölich K, Wiik H, Ludwig H, East ML **2005** Antibodies against equine herpesviruses and equine arteritis virus in Burchell's zebra (*Equus burchelli*) from the Serengeti Ecosystem. *Journal of Wildlife Diseases* **41**(1): 80-86.

Grange S, Duncan P, Gaillard JM, Sinclair ARE, Gogan PJP, Packer C, Hofer H, East ML **2004** What limits the Serengeti zebra population? *Oecologia* **140**: 523-532.

Peters G, East ML, Herzel HP, Henschel JR, Mills MGL, Wilhelm K, Hofer H **2004** Spotted hyaena whoops: frequent incidence of vocal instabilities in a mammalian loud call. *Bioacoustics* **14**: 99-109.

East ML, Moestl K, Benetka V, Pitra C, Höner OP, Wachter B, Hofer H **2004** Coronavirus infection among spotted hyenas in the Serengeti Ecosystem. *Veterinary Microbiology* **102**: 1-9.

Hofer ML, East ML **2003** Behavioural processes and costs of co-existence in female spotted hyenas: a life history perspective. *Evolutionary Ecology* **17**: 315-331.

Goymann W, East ML, Hofer H **2003** Defense of females, but not social status, predicts plasma androgen levels in male spotted hyenas. *Physiological and Biochemical Zoology* **76**: 586-593.

Wilhelm K, Dawson DA, Gentle LK, Greig C, Horsefield G, Schlötterer C, Burke T, East ML, Hofer H, Tautz D **2003** Characterisation of spotted hyena *Crocuta Crocuta* microsatellite loci. *Molecular Ecology Notes* **3**: 360-362.

- East ML, Burke T, Wilhelm K, Greig C, Hofer H **2003** Sexual conflicts in spotted hyenas: male and female mating tactics and their reproductive outcome with respect to age, social status and tenure. *Proceedings of the Royal Society London B* **270**: 1247-1254.
- Goymann W, East ML, Wachter B, Höner OP, Möstl E, Hofer H **2003** Social status does not predict corticosteroid levels in post-dispersal male spotted hyenas. *Hormones & Behavior* **43**: 474-479.
- Wachter B, Höner OP, East ML, Golla W, Hofer H **2002** Low aggression levels and unbiased sex ratios in a prey-rich environment: no evidence of siblicide in Ngorongoro spotted hyenas. *Behavioral Ecology and Sociobiology* **52**: 348-356. DOI 10.1007/s00265-002-0522-y
- East ML, Hofer H **2002** Conflict and co-operation in a female-dominated society: a re-assessment of the "hyper-aggressive" image of spotted hyenas (*Crocuta crocuta*). *Advances in the Study of Behavior* **31**: 1-30.
- Höner OP, Wachter B, East ML, Hofer H **2002** The response of spotted hyenas to long-term changes in prey populations: Functional response and interspecific kleptoparasitism. *Journal of Animal Ecology* **71**: 236-246.
- Loibooki M, Hofer H, Campbell KLI, East ML **2002** Bushmeat hunting by communities adjacent to the Serengeti National Park, Tanzania: the importance of livestock ownership and alternative sources of protein and income. *Environmental Conservation* **29**: 391-398.
- East ML, Hofer H, Cox JH, Wulle U, Wiik H, Pitra C **2001** Regular exposure to rabies virus and lack of symptomatic disease in Serengeti spotted hyenas. *Proceedings of the National Academy of Sciences of the United States of America* **98**: 15026-15031.
- Goymann W, East ML, Wachter B, Höner O, Möstl E, Van't Hof TJ, Hofer H **2001** Social, state-dependent and environmental modulation of faecal corticosteroid levels in free-ranging female spotted hyenas. *Proceedings of the Royal Society London B* **268**: 2453-2459
- East ML, Hofer H **2001** Male spotted hyenas *Crocuta crocuta* queue for status in social groups dominated by females. *Behavioral Ecology* **12**: 558-568.
- East ML, Burrows R **2001** The efficacy of inactivated rabies vaccine for the protection of African wild dogs (*Lycaon pictus*) against viral challenge: a review. *Erkrankungen der Zootiere (Verhandlungsbericht des Symposiums über die Erkrankungen der Zoo- und Wildtiere)* **40**: 233-242.
- Goymann W, East ML, Hofer H **2001** Androgens and the role of female 'hyperaggressiveness' in spotted hyenas (*Crocuta crocuta*). *Hormones and Behavior* **39**: 83-92.
- Hofer H, Campbell KLI, East ML, Huish S **2000** Modeling the spatial distribution of the economic costs and benefits of illegal game meat hunting in the Serengeti. *Natural Resource Modeling* **13**: 151-177.

- Albert R, Hofer H, East ML, Pitra C **2000** Genetische Identifizierung der geographischen Herkunft von Tüpfelhyänen (*Crocuta crocuta* Erxleben 1777). *Zoologischer Garten N.F.* **69**: 1-10.
- Golla W, Hofer H, East ML **1999** Within-litter sibling aggression in spotted hyaenas: effect of maternal nursing, sex and age. *Animal Behaviour* **58**: 715-726.
- Goymann W, Möstl E, Van't Hof T, East ML, Hofer H **1999** Non-invasive fecal monitoring of glucocorticoids in spotted hyenas, *Crocuta crocuta*. *General and comparative Endocrinology* **114**: 340-348.
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- Hofer H, East ML **1998** Biological conservation and stress. *Advances in the Study of Behavior* **27**: 405-525.
- East ML, Hofer H, Burrows R **1997** Stress hormones and radiocollaring of African wild dogs. *Conservation Biology* **11**: 1451-1453.
- East ML, Hofer H **1997** The peniform clitoris of female spotted hyaenas. *Trends in Ecology & Evolution* **12**: 401-402.
- Hofer H, East ML **1997** Skewed offspring sex ratios and sex composition of twin litters in Serengeti spotted hyaenas (*Crocuta crocuta*) are a consequence of siblicide. *Applied Animal Behaviour Science* **51**: 307-316.
- East ML & Hofer H **1996** Wild dogs in the Serengeti ecosystem: what really happened. *Trends in Ecology and Evolution* **11**: 509-509.
- Hofer H & East ML **1996** The components of parental care and their fitness consequences: a life history perspective. *Verhandlungen der Deutschen Gesellschaft für Zoologie* **89.2**: 149-164
- Haas L, Hofer H, East M, Wohlsein P, Liess B, Barrett T **1996** Canine distemper virus infection in Serengeti spotted hyaenas. *Veterinary Microbiology* **49**: 147-152.
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- East ML & Hofer H **1996** Wild dogs in the Serengeti. *Science* **271**: 275-276
- Hofer H, East ML **1995** Virilized sexual genitalia as adaptations of female spotted hyaenas. *Revue Suisse de Zoologie* **102**: 895-906.
- Burrows R, Hofer H, East ML **1995** Population dynamics, intervention, and survival in African wild dogs (*Lycaon pictus*). *Proceedings of the Royal Society London* **B262**: 235-245.
- Burrows R, Hofer H, East ML **1994** Demography, intervention, and extinction in a small population: the case of the Serengeti wild dogs. *Proceedings of the Royal Society London* **B256**: 281-292.

- Hofer H, East ML, Campbell KLI **1993** Snares, commuting hyaenas, and migratory herbivores: humans as predators in the Serengeti. *Symposia of the zoological Society London* **65**: 347-366.
- Hofer H, East ML **1993** The commuting system of Serengeti spotted hyaenas: how a predator copes with migratory prey. III. Attendance and maternal care. *Animal Behaviour* **46**: 575-589.
- Hofer H, East ML **1993** The commuting system of Serengeti spotted hyaenas: how a predator copes with migratory prey. II. Intrusion pressure and commuters' space use. *Animal Behaviour* **46**: 559-574.
- Hofer H, East ML **1993** The commuting system of Serengeti spotted hyaenas: how a predator copes with migratory prey. I. Social organization. *Animal Behaviour* **46**: 547-557.
- East ML, Hofer H, Wickler W **1993** The erect penis is a flag of submission in a female-dominated society: greeting ceremonies in Serengeti spotted hyaenas. *Behavioral Ecology & Sociobiology* **33**: 355-370.
- Hofer H, East ML, Campbell KLI **1993** Snares, commuting hyaenas, and migratory herbivores: humans as predators in the Serengeti. *Symposia of the zoological Society London* **65**: 347-366.
- East ML, Hofer H **1991** Loud-calling in a female-dominated society: II. Behavioural contexts and functions of whooping of spotted hyaenas, *Crocuta crocuta*. *Animal Behaviour* **42**: 651-669.
- East ML, Hofer H **1991** Loud-calling in a female-dominated society: I. Structure and composition of whooping bouts of spotted hyaenas, *Crocuta crocuta*. *Animal Behaviour* **42**: 637-649.
- East ML, Hofer H, Türk A **1989** Functions of birth dens in spotted hyaenas (*Crocuta crocuta*). *Journal of Zoology London* **219**: 690-697.
- Patterson IJ, Abdul Jalil S, East M **1989** Damage to winter cereals by greylag and pink-footed geese in north-east Scotland. *Journal of Applied Ecology* **23**: 879-895.
- East ML **1988** Crop selection, feeding skills and risks taken by adult and juvenile rooks (*Corvus frugilegus*). *Ibis* **130**: 294-299.
- East ML, Perrins CM **1988** The effect of nestboxes on breeding populations of birds in broadleaved temperate woodland. *Ibis* **130**: 393-401.
- East ML, Hofer H **1986** The use of radio-tracking for monitoring great tit (*Parus major*) behaviour: a pilot study. *Ibis* **128**: 103-114.
- East ML **1982** Time-budgeting by European robins (*Erithacus rubecula*): inter- and intrasexual comparisons during autumn, winter and early spring. *Ornis Scandinavica* **13**: 85-93.
- East ML **1981** Aspects of courtship and parental care of the European robin (*Erithacus rubecula*). *Ornis Scandinavica* **12**: 230-239.

East ML **1981** Alarm calling and parental investment in the robin (*Erithacus rubecula*). *Ibis* **123**: 223-230.

East ML **1980** Sex differences and the effect of temperature on the foraging behaviour of robins (*Erithacus rubecula*). *Ibis* **122**: 517-520.

Book Chapters

Burgener N, East ML, Hofer H, Dehnhard M **2008**. Do spotted hyena scent marks code for clan membership? In: Hurst J, Beynon R, Müller-Schwarze D (eds) *Chemical Signals in Vertebrates XI*, pp 169-177. Springer Verlag, Berlin, Heidelberg, New York, Germany, USA.

East ML, Hofer H **2007**. Hyenas and humans. In: Bekoff M (ed) *Encyclopedia of human-animal relationships. A global exploration of our connections with animals*, pp 1137-1140. Greenwood Press, Westport, Connecticut, London.

Hofer H, East ML, Sämmang I, Dehnhard M **2001** Analysis of volatile compounds in scent-marks of spotted hyenas (*Crocuta crocuta*) and their possible function in olfactory communication. In: Marchlewska-Koj A, Lepri JJ, Müller-Schwarze D (eds) *Chemical signals in vertebrates 9*, pp 141–148. New York: Plenum Press.

Hofer H, East ML **2000** Conflict management in female-dominated spotted hyenas. In: Aureli F, de Waal F.B.M. (eds) *Natural conflict resolution*, pp 232-234. Berkeley: University of California Press.

Colmenares F, Hofer H, East ML **2000** Greeting ceremonies in baboons and hyenas. In: Aureli F, de Waal F.B.M. (eds) *Natural conflict resolution*, pp 94-96. Berkeley: University of California Press.

East ML, Hofer H **1998** Cultural and public attitudes: towards an improvement of relationships between hyenas and man. In: Mills MGL, Hofer H (eds) *Hyaenas of the world: status survey and action plan*, pp. 96-102. Gland: IUCN.

Hofer H, Campbell KLI, East ML, Huish SA **1996** The impact of game meat hunting on target and non-target species in the Serengeti. In: Dunstone N, Taylor V (eds) *The exploitation of mammal populations*. London: Chapman & Hall, pp. 117-146.

Hofer H, East ML **1995** Population dynamics, population size and the commuting system of Serengeti spotted hyenas. In: Sinclair ARE, Arcese P (eds) *Serengeti II. Research, conservation and management of an ecosystem*, pp 332-363. Chicago: University of Chicago Press.

Hilborn R, Georgiadis N, Lazarus J, Fryxell JM, Broten MD, Mbanjo BNN, Murray MG, Sinclair ARE, Durant SM, Mwasaga B, Maige MKS, Arcese P, Albon S, *Hofer H*, Kapela M, Dobson A, East M, Nkya H, Dublin HT, Packer C, Campbell KLI, Gascoyne SC, Creel SR, Hetz P, Creel NM, Caro TM **1995** A model to evaluate alternative management policies for the Serengeti-Mara ecosystem. In: Sinclair ARE, Arcese P (eds) Serengeti II. Dynamics, management, and conservation of an ecosystem. Chicago: University of Chicago Press, pp. 617-637.