

**Publications by (I) Marta B Manser and (II) her research group (Nov 2014)**

---

- I) Marta Manser**
  - a. Peer reviewed
  - b. book chapters
  - c. reviews
  - d. non-peer reviewed
- II) 'Manser' group members**

## a) Peer reviewed publications

**2014**

64) Kershenbaum, A, Blumstein, DT, Roch, MA, Akcay, C, Backus, G, Bee, M, Bohn, K, Cao, Y, Carter, G, Cäsar, C, Coen, M, De Ruiter, ST, Doyle, L, Edelman, S, Ferrer-i-Cancho, R, Freeberg, TM, Garland, EC, Gustison, M, Harley, HE, Huetz, C, Hughes, M, Hyland Bruno, J, Ilany, A, Jin, D, Johnson, M, Ju, C, Karnowski, J, Lohr, B, **Manser, MB**, McCowan, B, Mercado, E, Narins, P, Piel, A, Rice, M, Salmi, R, Sasahara, K, Sayigh, L, Shiu, Y, Taylor, C, Vallejo, EE, Waller, S & Zamora-Gutierrez, V (in press) Acoustic sequences in non-human animals: A tutorial review and prospectus. *Biological Reviews*.

63) Sartori, C, **Manser, MB** & Mantovani R (2014) Relationship between number and intensity of fighting: evidence from cow fighting tournaments in Valdostana cattle. *Italian Journal of Animal Science*, 4. *online*.

62) Völlmy, IE, Braga Goncalves, I, Barrette, MF, Monfort, SL & **Manser MB** (2014) Mean fecal glucocorticoid metabolites correlate with vigilance, whereas immediate cortisol levels better reflect acute anti-predator responses in meerkats. *Hormones & Behavior*, *online*.

61) Bateman, AW, Lewis, MA, Gall, G, **Manser, MB** & Clutton-Brock, TH (2014) Territoriality and home-range dynamics in meerkats, *Suricata suricatta*: a mechanistic modelling approach *Journal of Animal Ecology*, *online*.

60) Collier, K, Bickel, B, van Schaik, C, **Manser MB** & Townsend, ST (2014) Language evolution: Syntax before phonology. *Proc. R. Soc. Lond. B*, **281**, *online*.

59) Townsend, SW, Charlton, BD & **Manser MB** (2014) Acoustic cues to identity and predator context in meerkat barks. *Animal Behaviour*, **94**, 143-149.

58) **Manser MB**, Jansen, DAWAM, Hollén, LI, Graw, B, Bousquet CA & le Roux A (2014) Vocal complexity in meerkats and other mongooses. *Advances in the Study of Animal Behavior*, **46**, 281-310.

57) Karp, D, **Manser MB**, Wiley, EM & Townsend, SW (2014) Nonlinearities in meerkat alarm calls prevent receivers from habituating. *Ethology*, **120**, 189-196.

**2013**

56) Jansen, DAWAM, Cant MA & **Manser MB** (2013) Testing for vocal individual discrimination in adult banded mongooses. *Journal of Zoology, London*, **291**, 171-177.

55) **Manser MB** (2013) 'Semantic communication in vervet monkeys and other animals. *Animal Behaviour*, **86**, 491-496.

54) Reber S, Townsend SW & **Manser MB** (2013) 'Social monitoring via close calls in meerkat. *Proc. R. Soc. Lond. B*, **280**, 20131013. doi: 10.1098/rspb.2013.1013

53) Santema P, Bennett N, **Manser MB** & Clutton-Brock TH (2013) 'Effects of cortisol administration on cooperative behavior in meerkat helpers. *Behavioral Ecology*, **24**, 1122-1127.

52) Leclaire S, Nielsen JF, Thavarajah NK, **Manser MB** & Clutton-Brock TH (2013) 'Odour-based kin discrimination in the cooperatively breeding meerkat. *Biology Letters*, **9**, 20121054.  
*doi:10.1098/rsbl.2012.1054*

51) Townsend SW & **Manser MB** (2013) 'Functionally referential communication in mammals: the past, present and the future. *Ethology*, **119**, 1-11.

50) Zöttl M, Lienert R, Clutton-Brock T, Millesi E & **Manser MB** (2013) 'The effects of recruitment to direct predator cues on predator responses in meerkats. *Behavioral Ecology*, **24**, 198-204.

## 2012

49) Jansen, DAWAM, Cant MA & **Manser MB** (2012) 'Segmental concatenation of individual signatures and context cues in banded mongoose (*Mungos mungo*) close calls. *BMC Biology*, **10**: 97.

48) Townsend SW, Rasmussen M, Clutton-Brock TH & **Manser MB** (2012) 'Flexible alarm calling in meerkats: the role of the social environment and predation urgency. *Behavioral Ecology*, **23**, 1360-1364.

47) Furrer RM, Kunc HJP & **Manser MB** (2012) 'Variable initiators of group departure in a cooperative breeder: the influence of sex, age, state and foraging success. *Animal Behaviour*. **84**, 205-212.

46) Townsend SW, Allen C & **Manser MB** (2012) 'A simple test of vocal individual recognition in wild meerkats. *Biology Letters*, **8**, 179-182.

## 2011

45) Bousquet CAH, Sumpter DJT & **Manser MB** (2011) 'Moving calls: a vocal mechanism underlying quorum decisions in cohesive groups.' *Proc. R. Soc. Lond. B*, **278**, 1482-1488.

44) Bousquet CAH & **Manser MB** (2011) 'Resolution of experimentally induced symmetrical conflicts of interest in meerkats.' *Animal Behaviour*. **81**, 1101-1107.

43) Furrer RD, Kyabulima S, Willems EP, Cant MA & **Manser MB** (2011) 'Location and group size influence decisions in simulated Inter-group encounters in banded mongooses.' *Behavioral Ecology*, **22**, 493-500.

42) Jordan NR, **Manser MB**, Mwanguhya F, Kyabulima S, Rüdi P & Cant MA (2011) 'Scent marking in wild banded mongooses: 1. Sex-specific scents and overmarking.' *Animal Behaviour*, **81**, 31-42.

41) Townsend SW, Zöttl M & **Manser MB** (2011) 'All clear? Meerkats attend to contextual information in close calls to coordinate vigilance.' *Behavioral Ecology and Sociobiology*, **65**, 1927-1934.

40) Townsend SW & **Manser MB** (2011) 'The function of non-linear phenomena in meerkat alarm calls'. *Biology Letters*, **7**, 47-49.

## 2010

39) Townsend SW, Hollén LI & **Manser MB** (2010) 'Meerkat close calls encode group significant signatures, but fail to discriminate.' *Animal Behaviour*, **80**, 133-138.

## 2009

38) Furrer R & **Manser MB** (2009) 'The evolution of urgency-based and functionally referential alarm calls in ground-dwelling species.' *American Naturalist*, **173**, 400-410.

37) Furrer R & **Manser MB** (2009) 'Banded mongoose recruitment calls convey information about risk and not stimuli type.' *Animal Behaviour*, **78**, 195-201.

36) Le Roux A, Cherry M, Gyax L & **Manser MB** (2009) 'Vigilance behaviour and fitness consequences between a solitary and a group foraging mammal.' *Behavioral Ecology & Sociobiology*, **63**, 1097-1107.

35) Le Roux A, Cherry M & **Manser MB** (2009) 'The vocal repertoire in a solitary foraging carnivore reflects facultative sociality.' *Naturwissenschaften*, **96**, 575-584.

34) Madden JR, Kunc HJ, English S, **Manser MB** & Clutton-Brock TH (2009) 'Do meerkat (*Suricata suricatta*) pups exhibit strategic begging behaviour and so exploit adults that feed at relatively high

rates?' *Behavioral Ecology & Sociobiology*, **63**, 1259-1268.

33) Madden JR, Kunc HJ, English S, **Manser MB** & Clutton-Brock TH (2009) 'Calling in the gap: Competition or cooperation in littermates begging behaviour.' *Proc. R. Soc. Lond. B*, **276**, 1255-1261.

## 2008

32) Hollén L, Clutton-Brock TH & **Manser MB** (2008) 'Factors affecting the development of alarm-call production, usage and responses in meerkats (*Suricata suricatta*).' *Behavioral Ecology and Sociobiology*, **62**, 821-829.

31) Le Roux A, Cherry M & **Manser MB** (2008) 'Audience effect on alarm calling in the facultatively social yellow mongoose.' *Animal Behaviour*, **75**, 943-949.

30) Le Roux A, Cherry M & **Manser MB** (2008) 'Social and ecological factors affecting scent marking in yellow mongooses.' *Journal of Zoology*, **275**, 33-40.

29) **Manser MB**, Madden JR, Kunc HJ, English S & Clutton-Brock T (2008) 'Signals of need in a cooperatively breeding mammal with mobile offspring.' *Animal Behaviour*, **76**, 1805-1813.

28) Muller C & **Manser MB** (2008) 'The information banded mongooses extract from heterospecific alarms.' *Animal Behaviour*, **75**, 897-904.

27) Muller C & **Manser MB** (2008) 'Mutual recognition of pups and providers in the cooperatively breeding banded mongoose.' *Animal Behaviour*, **75**, 1683-1692.

26) Muller C & **Manser MB** (2008) 'Scent-marking and intrasexual competition in a cooperative carnivore with low reproductive skew.' *Ethology*, **114**, 174-1185.

## 2007

25) Graw B & **Manser MB** (2007) 'The function of mobbing in cooperative meerkats.' *Animal Behaviour*, **74**, 507-517.

24) Hollén L, & **Manser MB** (2007) 'Motivation before meaning: motivational information encoded in meerkat alarm calls develop earlier than referential information.' *American Naturalist*, **73**, 613-622.

23) Hollén L & **Manser MB** (2007) 'Persistence of alarm-call behaviour in the absence of predators: a comparison between wild and captive-born meerkats (*Suricata suricatta*).' *Ethology*, **113**, 1038-1047.

22) Jordan NR, Cherry MI & **Manser MB** (2007) 'The spatial and temporal distribution of meerkat latrines reflects intruder diversity and suggests a role of mate defence.' *Animal Behaviour*, **73**, 613-622.

21) Kunc HJ, Madden J & **Manser MB** (2007) 'Begging signals in a mobile feeding system: The evolution of different call types.' *American Naturalist*, **170**, 617-624.

20) Muller C, & **Manser MB** (2007) 'Nasty neighbours, rather than 'dear enemies' in a social carnivore.' *Proc. R. Soc. Lond. B*, **274**, 959-965.

19) Schibler F & **Manser MB** (2007) 'The irrelevance of individual discrimination in meerkat alarm calls.' *Animal Behaviour*, **74**, 1259-1268.

## 2006

18) Carlson AA, **Manser MB**, Young AJ, Russell AF, Jordan NR, McNeilly AS & Clutton-Brock TH (2006) 'Cortisol level are positively associated with pup-feeding rates in male meerkats.' *Proc. R. Soc. Lond. B*, **273**, 571-577.

17) Clutton-Brock TH, Hodge S, Spong G, Russell AF, Jordan NR, Bennett NC & **Manser MB** (2006) 'Intrasexual competition in cooperative mammals.' *Nature*, **444**, 1065-1068.

16) Hollén L & **Manser MB** (2006) 'The ontogeny of alarm call responses in meerkat pups: the role of age, sex and nearby conspecifics.' *Animal Behaviour*, **72**, 1345-1353.

## 2000 - 2005

15) Hollén L & **Manser MB** (2005) 'Studying alarm call communication in meerkats.' *Cognition, Brain, Behavior*, **IX**, 525-538.

- 14) **Manser MB** & Bell MB (2004) 'The spatial representation of shelter locations in meerkats.' *Animal Behaviour*, **68**, 151-157.
- 13) **Manser MB** & Fletcher LB (2004) 'Vocalize to localize - a test on functionally referential alarm calls.' *Interactions Studies*, **5**, 325-342.
- 12) **Manser MB**, Seyfarth RM & Cheney DL (2002) 'Suricate alarm calls signal predator class and urgency.' *Trends of Cognitive Science*, **6**, 55-57.
- 11) Clutton-Brock TH, Brotherton PNM, O'Riain MJ, Gaynor D, Kansky R, **Manser MB**, Sharpe L, McIlrath GM (2001) 'Cooperation, control, and concession in meerkat groups.' *Science*, **291**, 5503, 478-481.
- 10) **Manser MB** (2001): 'The acoustic structure of suricate alarm calls varies with predator type and the level of urgency.' *Proc. R. Soc. Lond. B*, **268**, 2315-2324.
- 9) **Manser MB**, Bell MB & Fletcher LB (2001): 'The information that receivers extract from alarm calls in suricates.' *Proc. R. Soc. Lond. B*, **268**, 2485-2491.
- 8) Clutton-Brock TH, Brotherton PNM, O'Riain MJ, Griffin AS, Gaynor D, Sharpe L, Kansky R, **Manser MB**, McIlrath GM (2000) 'Individual contributions to babysitting in a cooperative mongoose, *Suricata suricatta*.' *Proc. R. Soc. Lond. B*, **267**, 1440, 301-305.
- 7) **Manser MB** & Avey G (2000) 'The effect of pup vocalisations on food allocation in a cooperative mammal, *Suricata suricatta*.' *Behavioral Ecology and Sociobiology*, **48**, 429-437.

#### 1995 – 1999

- 6) Clutton-Brock TH, O'Riain MJ, Brotherton PNM, Gaynor D, Kansky R, Griffin AS & **Manser M** (1999) 'Selfish Sentinels in Cooperative Mammals.' *Science*, **284**, 5420, 1577-1724.
- 5) Clutton-Brock TH, Gaynor D, McIlrath GM, Maccoll ADC, Kansky R, Chadwick P, **Manser M**, Skinner JD, Brotherton PNM (1999) 'Predation, group size and mortality in a cooperative mongoose, *Suricata suricatta*.' *Journal of Animal Ecology*, **68**, 672-683.
- 4) **Manser MB** (1999) 'Response of foraging group members to sentinel calls in suricates, *Suricata suricatta*.' *Proc. R. Soc. Lond. B*, **266**, 1013-1019.
- 3) Clutton-Brock TH, Gaynor D, Kansky R, MacColl ADC, MacIlrath GM, Chadwick P, Brotherton PNM, O'Riain J, **Manser M** & Skinner JD, (1998): 'Costs of cooperative behaviour in suricates (*Suricata suricatta*).' *Proc. R. Soc. Lond. B*, **265**, 185-190.
- 2) Brotherton PNM & **Manser MB** (1996): 'Female dispersion and Monogamy in the dikdik (*Madoqua kirkii*).' *Animal Behaviour*, **54**, 1413-1424.
- 1) **Manser MB** & Brotherton PNM (1995): 'Environmental constraints on the foraging behaviour of a dwarf antelope (*Madoqua kirkii*).' *Oecologia*, **102**, 404-412.

#### b) Book chapters

- 4) Clutton-Brock T & **Manser MB** (in press). Cooperative breeding in Kalahari meerkats. In: *Cooperative Breeding*, edited by W. König
- 3) Fichtel C & **Manser MB** (2011) 'Vocal communication in social groups' in *Animal Behaviour: Evolution & Mechanisms* edited by P. Kappeler, Springer, Heidelberg
- 2) **Manser MB** (2010) 'The generation of functionally referential and motivational vocal signals in mammals'. In *Handbook of Mammalian Vocalizations* edited by S. M. Brudzynski, Elsevier, Amsterdam.
- 1) **Manser MB** (2009) 'What do functionally alarm calls refer to?' in *Cognitive Ecology* edited by R. Dukas & J. Ratcliffe, The University of Chicago Press.

#### c) Book review

- Manser MB** (2009) Book review in *The Quarterly Review of Biology*, **84**, 425-426, on 'Prairie dogs: Communication and Community in an Animal Society' by CN Slobodchikoff, BS Perla, JL Verdolin,

Harvard University Press.

d) *Non-peer reviewed*

Furrer RM & **Manser MB** (2010) 'Ist Glück rein menschlich?' *VSAO Journal ASMAC*, 04, 24-25.

**Manser MB** & Fischbacher M (2004) 'Schleichkatzen' in *Faszination Natur, Tiere*, Brockhaus, Leipzig.

e) *Peer reviewed publications of my group members (affiliation University of Zurich), without me as co-author*

15) **Stachowicz, J. B.**, Vannoni, E., Pitcher, B. J., Briefer, E. F., Geffen, E., & McElligott, A. G. (2014). Acoustic divergence in the rut vocalizations of Persian and European fallow deer. *Journal of Zoology*, 292(1), 1-9.

14) **Wismer, S.**, Pinto, A. I., Vail, A. L., Grutter, A. S. & Bshary, R. (2014). Variation in Cleaner Wrasse Cooperation and Cognition: Influence of the Developmental Environment? *Ethology*, **120**(6), 519-531.

13) Farago, T, **Townsend S** & Range F (2014) The information content of wolf (and dog) social communication. *Biocommunication of animals*, pp. 41-62.

12) Schel AM, **Townsend SW**, Machanda Z, Zuberbühler K, Slocombe KE (2013) Chimpanzee Alarm Call Production Meets Key Criteria for Intentionality. *PloS one*, **8** (10), e76674

11) Mazzini F\*, **Townsend SW\***, Viranye Z & Range F (2013) Wolf howling is mediated by relationship quality rather than underlying emotional stress. *Current Biology*, **23**, 1677–1680.

10) Perony, N, & **Townsend, SW** (2013). Why Did the Meerkat Cross the Road? Flexible Adaptation of Phylogenetically-Old Behavioural Strategies to Modern-Day Threats. *PloS one*, **8** (2), e52834.

9) Raihani NJ, Pinto AI, Grutter AS, **Wismer S** & Bshary R (2012) 'Male cleaner wrasses adjust punishment of female partners according to the stakes.' *Proc. Roy. Soc. B*, **279**, 365-370.

8) Jordan NR, Mwanguhya F, **Furrer RD**, Kyabulima S, Rüdi P & Cant MA (2011) 'Scent marking in wild banded mongooses: 1. Intrasexual overmarking and competition between males.' *Animal Behaviour*, **81**, 43-50.

7) **Townsend SW**, Deschner T & Zuberbühler K (2011) 'Copulation calls in female chimpanzees convey identity and conceal fertility.' *International Journal of Primatology*, **32**, 914-923.

6) **Di Iorio L** & Clark CW (2010) 'Exposure to seismic survey alters blue whale acoustic communication.' *Biology Letters*, **6**, 51-54.

5) Slocombe KE, Kaller T, Turman L, **Townsend SW**, Papworth S & Zuberbühler K, (2010) Production of food-associated calls in wild chimpanzees is dependent on the composition of the audience *Behavioural Ecology and Sociobiology*, **64**, 1959-1966.

4) **Gross K**, Passinelli G & **Kunc HP** (2010) 'Behavioral plasticity allows short-term adjustment to a novel environment.' *American Naturalist*, **176**, 456-464.

3) **Heberlein M** & Turner DC (2009) 'Dogs, *Canis familiaris*, find hidden food by observing and interacting with a conspecific.' *Animal Behaviour*, **78**, 385-391.

2) **Müller CA** & Bell MBV (2009) 'Kidnapping and infanticide between banded mongoose groups.' *Mammalian Biology*, **74**, 315-318.

1) English SE, **Kunc HP**, Madden JR, Clutton-Brock TH (2008) 'Sex differences in responsiveness to begging in a cooperative mammal.' *Biology Letters*, **4**, 334-337.