

## Curriculum vitae



### Personal

Name: Björn M. Siemers

Date of birth: May 25<sup>th</sup> 1972

Place of birth: Stuttgart, Germany

Married, two children

Language skills: German, English, Portuguese, French, Spanish

### Education and academic degrees

2006 Habilitation in zoology, Faculty of Biology, University of Tübingen

2000 PhD (Doctor rer. nat.), Faculty of Biology, University of Tübingen  
Dissertation title: "Prey perception by echolocation in *Myotis* bats"  
PhD fellow of the German National Merit Foundation ("Studienstiftung des deutschen Volkes")

1997 "Diplom" in Biology (equivalent to MSc), University of Tübingen  
Thesis: "Foraging and echolocation behaviour in Natterer's bat, *Myotis nattereri*"

1991-97 Studies in animal physiology, zoology, genetics and public law at University of Tübingen, Germany

1996 European Certificate of Primatology, University Louis Pasteur, Strasbourg, France and Ruhr-University Bochum, Germany

1994-95 Post-graduate studies in primatology, entomology and neurobiology in Brazil at São Paulo University (USP) within the exchange programme of the German Academic Exchange Service (Deutscher Akademischer Austauschdienst, DAAD)

### Academic positions

2006 - Leader of a Max Planck Research Group (W2) at the Max Planck Institute for Ornithology, Seewiesen

2000 -06 Assistant professor ("Wissenschaftlicher Assistent", C1), Dept. Animal Physiology, Zoological Institute, University of Tübingen

1997-00 Research associate ("Wissenschaftlicher Mitarbeiter"), Dept. Animal Physiology, Zoological Institute, University of Tübingen

### Awards

2009 HFSP (Human Frontier Science Program) Award

## Fellowships

- 2006- Research associate of the Indiana State University Center for North American Bat Research and Conservation
- 2002 -04 Researcher in a forest bat ecology project and teacher in the Summer School for Ecology and Biodiversity at European Union's Centre of Excellence BIOTER in Bialowieza, Poland
- 2003 Fellow in the research group "General Theory of Information Transfer and Combinatorics" at the Institute for Advanced Study (ZiF), Bielefeld University (one month)

## International research experience

- Bulgaria cooperation with the National Museum of Natural History, Sofia, 1999 to date; own research station in Northern Bulgaria since 2007
- Poland cooperation with Mammal Research Institute, Bialowieza, 2002 to date
- Panama PI for a project with the Smithsonian Tropical Research Institute, STRI, 2000
- Brazil studies and field projects, 1994 & 1998
- Madagascar PI for field projects 2002-2003
- Malaysia field project in cooperation with University of Malaya and Texas Tech (USA), 2009

## Ad hoc referee for scientific journals

- Acta Chiropterologica
- Acta Oecologica
- Acta Theriologica
- Animal Behaviour
- Animal Cognition
- Behavioural Ecology
- Behavioral Ecology and Sociobiology
- Biotropica
- Current Biology
- Ecological Research
- European Journal of Wildlife Research
- Hearing Research
- Journal of Applied Ecology
- Journal of Comparative Physiology A
- Journal of Experimental Biology
- Journal of Mammalogy
- Journal of Zoology

- Naturwissenschaften
- Oecologia
- PLoS ONE
- Proceedings of the Royal Society B
- Zoological Science

### **Ad hoc referee for granting institutions**

- Alexander von Humboldt Foundation
- Biotechnology and Biological Sciences Research Council (BBSRC)
- Deutsche Bundesstiftung Umwelt (DBU)
- Deutsche Forschungsgemeinschaft (DFG)
- National Geographic Society (NGS) – Committee for Research and Exploration
- Natural Environment Research Council (NERC)
- Studienstiftung des deutschen Volkes

### **Member in thesis committees and refereeing of theses**

- University of Hannover
- Universität Tübingen
- Ludwigs-Maximilians-Universität, Munich
- University of Cape Town, South Africa
- University of the Basque Country

### **Professional activities**

- Spokesman for the “Fachgruppe Verhaltensbiologie” (Expert group Behavioural Biology) of the German Zoological Society (DZG)
- Member of the editorial board of Acta Chiropterologica
- Guest editor for a special issue of the Journal of Comparative Physiology A in honour of the late Prof. Gerhard Neuweiler
- Expert advisor for the German Federal Ministry of Transport, Building and Urban Affairs (traffic impact on bat populations), the Federal Agency for Nature Conservation (collision risk of bats with wind turbines) and the public German TV stations Arte, SWR, NDR (bat film)

### **Organization of symposia and meetings**

- 2010 “Gerhard Neuweiler Memorial Symposium on Bat Echolocation” at the International Bat research Conference, Prague, Czech Republik (August 2010) with Prof. G Jones (University of Bristol)

- 2009 Graduate student meeting Behavioural Biology in Seewiesen, sponsored by DZG and Ethologische Gesellschaft
- 2007 "Sensory and cognitive ecology of foraging in prosimians" Symposium convened together with Dr. N. J. Dominy (University of California SC) at the International Congress Prosimians, Ithala, South Africa (July 18<sup>th</sup>)
- 2006 „Sensory ecology in mammals - a comparative approach to mammalian perception of the world" Symposium at the 9th Tübingen Perception Conference (TWK, March 4<sup>th</sup> )
- 2004 "Sensory ecology in bat foraging behaviour" Symposium convened together with Prof. G Jones (University of Bristol) at the 12th International Bat Research Conference in Poland (August 24<sup>th</sup>)
- 2001 XXVII Ethological Conference, Tübingen (committee member)

### Invited talks

- 2010 University of Frankfurt, Neurobiology, Colloquium talk (April 20<sup>th</sup>)
- 2009 5th Animal Sonar Symposium, Kyoto, Japan (September 18<sup>th</sup>)
- 2009 International Ethological Conference, Rennes, France (August 24<sup>th</sup>)
- 2009 School of Biological Sciences, University of Bristol, UK (March 16<sup>th</sup>)
- 2008 Brain and Behaviour Seminar, Universität Bielefeld (May 29<sup>th</sup>)
- 2008 Seminar Series "Science for Conservation", Institute of Zoology, Zoological Society of London, UK (May 19<sup>th</sup>)
- 2007 Seminar Series in Ecology, Evolution and Systematics, LMU München (December 11<sup>th</sup>)
- 2007 100th annual meeting of the Deutsche Zoologische Gesellschaft (DZG), Köln (main symposium talk in behavioural biology, September 23<sup>rd</sup>)
- 2007 University of Bern, Zoological Seminary (April 3<sup>rd</sup>)
- 2007 DZG Graduate-Meeting of the Study Group Animal Behavior at the DPZ, Göttingen (main talk, February 18<sup>th</sup>)
- 2007 Leibniz Institute for Zoo and Wildlife Research, Berlin (February 14<sup>th</sup>)
- 2007 University of Veterinary Medicine Hannover, Biological Colloquium (January 22<sup>nd</sup>)
- 2006 vdbiol Bavaria, annual meeting, Würzburg (November 11<sup>th</sup>)
- 2006 University of Cologne, Neurobiological Colloquium (January 23<sup>rd</sup>)
- 2005 Münchner Wissenschaftstage (vdbiol, September 25<sup>th</sup>)
- 2004 University of Ljubljana, Slovenia (April 26<sup>th</sup>)
- 2003 University of Hamburg, Zoological Colloquium (May 22<sup>nd</sup>)
- 2002 University of Ulm, Ecological Colloquium (December 17<sup>th</sup>)
- 2002 National Museum of Natural History, Bulgarian Academy of Sciences, Sofia, Bulgaria (October 30<sup>th</sup>)
- 2002 Bat Echolocation Symposium, Bat Conservation International & National Fish and Wildlife Foundation, Austin, USA (April 16<sup>th</sup>)
- 2002 University of Jena, Ecological Colloquium, (January 9<sup>th</sup>)

- 2001 12th International Bat Research Conference (invited symposium talk), Kuala Lumpur, Malaysia (August 9<sup>th</sup>)
- 2000 University of Marburg, Ecological Colloquium (November 7<sup>th</sup>)
- 1999 University of Zürich-Irchel, Ecological Colloquium (April 28<sup>th</sup>)

## Research funding

### Research grants

- 2009 Program Grant from the Human Frontier Science Program (HFSP) for a research project entitled "Listening through the looking glass: perception and neural encoding of mirror images in biosonar" (with Dr. N. Ulanovski, Weizmann Institute of Science, Israel and Dr. Lutz Wiegrebe, Ludwig-Maximilians Universität München; 900.000 US\$ - 3 years).
- 2007 Research grant from the German Ministry of Transport (BMVBS) for project on bats and highways (influence of car lights on foraging ecology in bats)
- 2006 Research Group from the Max Planck Society (equivalent to 1.6 Mio €; 5 years; selected in a central competition 2004/05)
- 2005 Research grant from the Polish Science Foundation for the project „The sensory ecology of roost selection in bats" (with Dr. I. Ruczynski, Białowieza and Prof. E.K.V. Kalko, Ulm)
- 2005 Research grant from the German Ministry of Transport (BMVBS) for project on bats and highways (Influence of traffic noise on foraging success in bats)
- 2005 Research grant from the University of Tübingen for the project „Active prey selection in bats“
- 2003 Research grant from the Volkswagen Foundation for the project “Adaptive foraging strategy in horseshoe bats *Rhinolophus* spp. (Chiroptera: Rhinolophidae): a behavioural approach to the cognitive ecology of active prey selection”
- 2002 Research grant from the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG) for the project “Auditory sensory ecology in insect-eating mammals”
- 2002 Research grant by National Geographic Society, Committee for Research and Exploration for the project “Sensory ecology of nocturnal Malagasy primates: the role of auditory information” (with Prof. J.U. Ganzhorn, Hamburg)
- 2001 Research grant from the State of Baden-Württemberg for a project on the comparative ecology of horseshoe bats in Bulgaria
- 2000 Research grant from the Schuler-Foundation to conduct field research on the comparative ecology of horseshoe bats in Bulgaria

Total grant volume > 3 Mio. Euro

### Stipends and travel grants

- 2006 Invitation and travel grant from the Humboldt Foundation to attend the 12. German-American Frontiers of Science Symposium

- 2001 Travel grant from the German Research Foundation (DFG) to attend the 12th International Bat Research Conference in Kuala Lumpur, Malaysia
- 2000 Grant to organize a research colloquium on interspecific competition for doctoral student fellows of the German National Merit Foundation
- 1998/00 Scholarship for doctoral student by the German National Merit Foundation
- 1999 Travel grant from the Reinhold-and-Maria-Teufel-Foundation to conduct field research at the Smithsonian Tropical Research Institute's (STRI) field station on Barro Colorado Island (BCI), Panama
- 1994-95 Scholarship from the German Academic Exchange Service (DAAD) to study at São Paulo University (USP), Brazil

## Teaching experience & Thesis supervision

SS: summer term; WS: winter term

### Lectures

Animal behaviour: ethology, physiology and behavioural ecology. SS 2004, SS 2005

Introduction to bioacoustics and statistics (in the frame of graduate courses) SS 2003, SS 2004, SS 2006

### Seminars

Trends and methods in neurobiology and neuroethology. WS 2001/2002, WS 2002/2003, WS 2003/2004, WS 2004/2005, WS 2005/2006

Behavioural ecology I – beginners. SS 2001, SS 2002, SS 2003, SS 2004, SS 2005

Behavioural ecology II – advanced. WS 2002/2003, WS 2003/2004, WS 2004/2005

Ecophysiology: extreme performances in animals. WS 2006/2007

Neural mechanisms of audition-linked behaviours. Each Semester WS 2000/2001 through SS 2006.

### Courses

Bioacoustical field course with student research projects. SS 2001, SS 2002, SS 2003, SS 2004

Projects on e.g. bioacoustics, sensory biology and behavioural ecology of insects, amphibians, songbirds and bats

Introduction to animal physiology. SS 2001, SS 2002, SS 2005

E.g., nerv and muscle physiology, psychophysics, energetics, respiration, heart and blood physiology

Acoustic analysis of human speech (course for the International Graduate School of Neural and Behavioural Sciences, Tübingen). SS 2004

Student research projects in the “Großpraktikum” Animal Physiology. Three-week full-day course, seminar, lectures. WS 2000/2001, SS 2001, WS 2001/2002, WS 2002/2003, SS 2003, WS 2003/2004, SS 2004, WS 2004/2005, SS 2005, WS 2005/2006, SS 2006, SS 2007, SS 2008, SS 2009

Experiments on e.g., foraging behaviour and decision making in ants, dragon flies, mice, rats, shrews, ducks, wild boar and humans

Student research projects in the “Großpraktikum für Lehramtskandidaten (Zoologie) WS 2000/2001, WS 2003/2004, WS 2004/2005, WS 2005/2006

### Excursions

Ecology and bioacoustics of European bats (1/2 day). SS 2002, SS 2003, SS 2004, SS 2005

Primate biology and behaviour (Stuttgart Zoo, ½ day). SS 1993

Excursion to the Opel-Zoo Kronberg (1 day). WS 2004/2005

German-Bulgarian field course on behavioural ecology in Bulgaria with student research projects and faunistic training (3 weeks). SS 2004

### Teaching at the Summer School in Ecology and Biodiversity

at the ,European Union’s Centre of Excellence BIOTER at the Mammal Research Institute of the Polish Academy of Sciences, Bialowieza, Poland

Lecture The sensory ecology of prey detection and prey selection

Field course Identification of bats

## **Scientific theses supervised**

### Diploma and Masters theses

Driessens T (2010) Predator recognition in bats: the role of echoacoustic, visual and auditory cues.

Schmieder D (2009) Sensory ecology of the rainforest bats *Kerivoula* and *Murina*

Schuller M (2008) Predator recognition in bats and birds

Greif S (2007) Strategies for the detection of cryptic prey in Natterer’s bat (*Myotis nattereri*)

Schwarz B (2007) Behavioural audiogram of greater mouse-eared bat (*Myotis myotis*): Ears adapted for detecting rustling prey?

Pfeifer S (2006): Echolocation behaviour of the greater mouse-eared bat, *Myotis myotis*, in the field

Wetzold A (2005): Prey detection in the greater galago, *Otolemur garnettii* Ogilby 1838, in captivity (“Zulassungsarbeit Staatsexamen”)

Görlitz H (2004) Sensory ecology, foraging and acoustic prey perception in grey mouse lemurs, *Microcebus murinus*, in short-term captivity

- Schauermann G (2004) Sensory ecology of prey detection and spatial orientation in shrews, Soricidae
- Piep M (2004) Prey detection in grey mouse lemurs, *Microcebus murinus*, in the laboratory
- Höffe T (2003) Innate and learned behavioural responses of laboratory rodents to predator and non-predator calls
- Baur E (2002) Echolocation behaviour and detection distance in pond bats, *Myotis dasycneme*, catching prey in mid-air and from a smooth surface ("Zulassungsarbeit Staatsexamen")
- Giemsch U (2002) The role of acoustic information for foraging in Scandentia and Primates ("Zulassungsarbeit Staatsexamen")
- Nißen L (2002) Foraging and echolocation behaviour in the Savi's pipistrelle, *Hypsugo savii*;
- Wagner AS (2001) Echolocation and flight behaviour in the Schreiber's bat, *Miniopterus schreibersii*, in the field

#### PhD theses

- Zsebok S (ongoing) Applying neural networks for the classification of bioacoustic signals
- Clarín T (ongoing) Comparative learning and cognition in bats
- Schmieder D (ongoing) Sensory and mechanical and constraints on foraging and prey processing in insectivorous bats
- Schuller M (ongoing) Ecophysiology and distribution of European bats
- von Merten S (ongoing) Spatial exploration and acoustic orientation in shrews.
- Greif S (ongoing) The sensory basis of water recognition in echolocating bats.
- Koselj K (2010) Adaptive prey selection strategy in the greater horseshoe bat, *Rhinolophus ferrumequinum*: from prey perception to decision-making.
- Dietz C (2007) Aspects of ecomorphology in the five European horseshoe bats (Chiroptera: Rhinolophidae) in the area of sympatry.

#### Present and former Postdocs in my group:

- Dr. Maike Schuchmann (2007-2009): The role of echolocation calls for niche separation and species recognition in horseshoe bats.
- Dr. Andrea Schaub (2005-2008) Impact of traffic noise and light on bat foraging behaviour
- Dr. Nicole Czech (2008) Ecomorphology of gleaning bats
- Dr. Peter Estok (2008) Echolocation behaviour of the bird-eating giant noctule bat
- Dr. Rachel Page (2008-2009) Comparative cognition in bats: Ecological correlates of learning and novelty response
- Dr. Ireneusz Ruczynski (2009-2011) The influence on torpor on learning and memory
- Dr. Sébastien Puechmaille (2010-2011) The genetic basis, behavioural relevance and evolution of call frequency variation in bats.

## Seminars taken on teaching skills and group leadership

Seminar „Teaching and learning at university“ (Arbeitsstelle Hochschuldidaktik, Universität Tübingen), March 2002

Seminar „Project and group leadership“ (Max-Planck-Gesellschaft & Thalheim Training-Coaching-Organisationsentwicklung, München), December 2006

## Publications Björn M. Siemers

### Journal papers

1. **Siemers BM**, Kaipf I, Schnitzler H-U (1999) The use of day roosts and foraging grounds by Natterer's bats (*Myotis nattereri* KUHL, 1818) from a colony in Southern Germany. **Zeitschrift für Säugetierkunde** 64: 241-245
2. **Siemers BM** (2000) Seasonal variation in forest strata use by tufted capuchin monkeys (*Cebus apella*) in a disturbed habitat. **Folia Primatologica** 71: 181-184
3. **Siemers BM**, Schnitzler H-U (2000) Natterer's bat (*Myotis nattereri* Kuhl, 1818) hawks for prey close to vegetation using echolocation signals of very broad bandwidth. **Behavioral Ecology and Sociobiology** 47: 400-412
4. **Siemers BM**, Kalko EKV, Schnitzler H-U (2001) Echolocation behavior and signal plasticity in the Neotropical bat *Myotis nigricans* (Schinz, 1821) (Vespertilionidae): a convergent case with European species of *Pipistrellus*? **Behavioral Ecology and Sociobiology** 50: 317-328
5. **Siemers BM**, Stilz P, Schnitzler H-U (2001) The acoustic advantage of hunting at low heights above water: behavioural experiments on the European 'trawling' bats *Myotis capaccinii*, *M. dasycneme* and *M. daubentonii*. **Journal of Experimental Biology** 204: 3843-3854
6. **Siemers BM**, Dietz C, Nill D, Schnitzler H-U (2001) *Myotis daubentonii* is able to catch small fish. **Acta Chiropterologica** 3: 71-75
7. Denzinger A, **Siemers BM**, Schaub A, Schnitzler H-U (2001) Echolocation by the barbastelle bat, *Barbastella barbastellus*. **Journal of Comparative Physiology A** 187: 521-528
8. **Siemers BM** (2001) Finding prey by associative learning in gleaning bats: experiments with a Natterer's bat *Myotis nattereri*. **Acta Chiropterologica** 3: 211-215
9. **Siemers BM**, Schnitzler HU (2004) Echolocation signals reflect niche differentiation in five sympatric congeneric bat species. **Nature** 429:657-661
10. **Siemers BM**, Ivanova T (2004) Ground gleaning in horseshoe bats: comparative evidence from *Rhinolophus blasii*, *R. euryale* and *R. mehelyi*. **Behavioral Ecology and Sociobiology** 56: 464-471
11. **Siemers BM**, Baur E, Schnitzler HU (2005) Acoustical mirror effect increases prey detection distance in trawling bats. **Naturwissenschaften** 92: 272-276

12. **Siemers BM**, Beedholm K, Dietz C, Dietz I, Ivanova T (2005) Is species identity, sex, age or individual quality conveyed by echolocation call frequency in European horseshoe bats? **Acta Chiropterologica** 7: 259-274
13. **Siemers BM**, Swift SM (2006) Differences in sensory ecology contribute to resource partitioning in the bats *Myotis bechsteinii* and *Myotis nattereri* (Chiroptera: Vespertilionidae). **Behavioral Ecology and Sociobiology** 59: 373-380
14. **Siemers BM**, Kerth G (2006) Do echolocation calls of the colony-living Bechstein's bats (*Myotis bechsteinii*) provide individual-specific signatures? **Behavioral Ecology and Sociobiology** 59: 443-454
15. **Siemers BM**, Güttinger R (2006) Prey conspicuousness can explain apparent prey selectivity. **Current Biology** 16: R157-R159
16. Dietz C, Dietz I, Ivanova T, **Siemers BM** (2006) Effects of forearm bands on horseshoe bats (Chiroptera: Rhinolophidae). **Acta Chiropterologica** 8: 523-535
17. Dietz C, Dietz I, **Siemers BM** (2006) Wing measurement variations in the five European horseshoe bat species (Chiroptera: Rhinolophidae). **Journal of Mammalogy** 87: 1241-1251
18. Goerlitz HR, **Siemers BM** (2007): Sensory ecology of prey rustling sounds: acoustical features and their classification by wild Grey Mouse Lemurs. **Functional Ecology** 21: 143-153
19. **Siemers BM**, Goerlitz HR, Robsomanitrdrasana E, Piep M, Ramanamanjato JB, Rakotondravony D, Ramilijaona O, Ganzhorn JU (2007) Sensory basis of food detection in wild *Microcebus murinus*. **International Journal of Primatology**, 28: 291-304
20. Dietz C, Dietz I, **Siemers BM** (2007) Growth of horseshoe bats (Chiroptera: Rhinolophidae) in temperate continental conditions and the influence of climate. **Mammalian Biology** 72: 129-144
21. Hoffmann FF, Hejduk J, Caspers B, **Siemers BM**, Voigt CC (2007) In the mating system of the bat *Saccopteryx bilineata* (Chiroptera; Emballonuridae) bioacoustic constraints impede male eavesdropping on female echolocation calls for their surveillance. **Canadian Journal of Zoology**, 85: 863-872
22. Ruczyński I, Kalko EKV, **Siemers BM** (2007) The sensory basis of roost finding in a forest bat, *Nyctalus noctula*. **Journal of Experimental Biology**, 210:3607-3615 (featured in a Current Biology dispatch and in 'Inside JEB')
23. Piep M, Radespiel U, Zimmermann E, Schmidt S, **Siemers BM** (2008) The sensory basis of prey detection in captive-born grey mouse lemurs (*Microcebus murinus*). **Animal Behaviour**, 75: 871-878
24. Voigt CC, Baier L, Speakman JR, **Siemers BM** (2008) Stable carbon isotopes in exhaled breath as tracers for dietary information in birds and mammals. **Journal of Experimental Biology**, 211: 2233-2238
25. Goerlitz HR, Greif S, **Siemers BM** (2008) Cues for acoustic detection of prey: Insect rustling sounds and the influence of walking substrate. **Journal of Experimental Biology**, 211: 2799-2806 (featured in 'Inside JEB')
26. Schaub A, Ostwald J, **Siemers BM** (2008) Foraging bats avoid noise. **Journal of Experimental Biology**, 211: 3174-3180 (featured in a Current Biology dispatch and in 'Inside JEB')
27. Czech NU, Klauer G, Dehnhardt G, **Siemers BM** (2008) Fringe for foraging? Histology of the bristle-like hairs on the tail membrane of the gleaning bats, *Myotis nattereri*. **Acta Chiropterologica**, 10: 303-311

28. Kindermann T, **Siemers BM**, Fendt M (2009) Innate or learned acoustic recognition of avian predators in rodents? **Journal of Experimental Biology**, 212: 506-513
29. Ruczyński I, Kalko EKV, **Siemers BM** (2009) Calls in the forest: a comparative approach to how bats find tree cavities. **Ethology**, 115: 167-177
30. Estók P, **Siemers BM** (2009) Calls of a bird-eater: the echolocation behaviour in of the enigmatic greater noctule, *Nyctalus lasiopterus*. **Acta Chiropterologica** 11, 405-414
31. **Siemers BM**, Turni H, Schaueremann G, Merten S (2009) Why do shrews twitter? Communication or simple echo-based orientation. **Biology Letters** 5, 593-596 (featured in 'Outside JEB')
32. Estók P, Zsebok S, **Siemers BM** (2010) Great tits search for, catch, kill and eat hibernating bats. **Biology Letters**, 6:59-62 (chosen as Faculty of 1000 paper, strong international media coverage)
33. Holland RA, Borissov I, **Siemers BM** (2010) A nocturnal mammal, the greater mouse-eared bat, calibrates a magnetic compass by the sun. **Proceedings of the National Academy of Sciences of the USA (PNAS)**, 107:6941-6945
34. Schuchmann M, **Siemers BM** (2010) Behavioral evidence for community-wide species discrimination from echolocation calls in bats. **American Naturalist**, 176:72–82
35. Safi K, **Siemers BM** (2010) Implications of sensory ecology for species coexistence: Biased perception links predator diversity to prey size distribution. **Evolutionary Ecology**, 24:703-713
36. Voigt CC, Schuller BM, Greif S, **Siemers BM** (2010) Perch-hunting in insectivorous *Rhinolophus* bats is related to high energy costs of manoeuvring flights. **Journal of Comparative Physiology B**, in press, doi: 10.1007/s00360-010-0466-x
37. Schmieder D, Kingston T, Hashim R, **Siemers BM** (2010) Breaking the trade-off: rainforest bats maximise bandwidth and repetition rate of echolocation calls as they approach prey. **Biology Letters**, in press, doi:10.1098/rsbl.2010.0114
38. Driessens T, **Siemers BM** (2010) Cave-dwelling bats do not avoid TMT and 2-PT, components of predator odour that induce fear in other small mammals. **Journal of Experimental Biology**, 213:2453-2460
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39. Schuchmann M, **Siemers BM** (in revision) Variability in echolocation call intensity in a community of horseshoe bats: a role for resource partitioning or social communication? Pending minor revision **PLoS ONE**
40. Jones PL, Page RA, Hartbauer M, **Siemers BM** (in revision) Behavioral evidence for eavesdropping on prey song in two Palearctic sibling bat species. Pending minor revision **Behavioral Ecology and Sociobiology**
41. **Siemers BM**, Greif S, Borissov I, Voigt-Heucke SL, Voigt CC (under review) Divergent trophic levels in two cryptic sibling bat species. Under review for **Oecologia**
42. Jones G, **Siemers BM** (under review) The communicative potential of bat echolocation pulses. Under review for **Journal of Comparative Physiology A**
43. Koselj K, Schnitzler HU, **Siemers BM** (under review) Horseshoe bats use echo information to make adaptive prey selection decisions. Under review for **Proceedings of the Royal Society B**
44. Ruczyński I, **Siemers BM** (under review) Hibernation does not affect memory retention in bats. Under review for **Biology Letters**

**Book chapters (peer reviewed)**

45. **Siemers BM** (2004): Bats in the field and in a flight cage: recording and analysis of their echolocation calls and behavior. In: Brigham RM et al. (Eds.) *Bat Echolocation Research: tools, techniques and analysis*. **Bat Conservation International**. Austin, Texas pp 107-113.
46. **Siemers BM** (2006): Bats: communication by ultrasound. In: Brown K (Ed.) *The Encyclopedia of Language and Linguistics*. **Elsevier**, pp 699-704
47. Jenkins RKB, Kofoky AF, Russ JM, Andriafidison D, **Siemers BM**, Randrianandrianina F, Mbohoahy T, Rahaingondrahety VN, Racey PA (2008) Ecology and conservation of bats in the southern Anosy region. In: Vincelette M, Ganzhorn JU, Goodman SM (eds.) *Biodiversity, ecology, and conservation of littoral ecosystems in the region of Tolagnaro (Fort Dauphin), Southeastern Madagascar*. SI/MAB Series #11. **Smithsonian Institution**, Washington DC, pp 209-222
48. **Siemers BM**, Page R (2009) Behavioral studies of bats in captivity: methodology, training, and experimental design. In: Kunz T, Parsons S (Eds.) *Ecological and behavioral methods for the study of bats*. **Johns Hopkins University Press**, pp 373-392
49. Whitaker JO Jr., McCracken G, **Siemers BM** (2009) Food habits analysis of insectivorous bats. In: Kunz T, Parsons S (Eds.) *Ecological and behavioral methods for the study of bats*. **Johns Hopkins University Press**, pp 567-592
50. **Siemers BM** (under review) The sensory ecology of foraging for animal prey. In: Masters J, Gamba M, Génin F (eds.) *Leaping Ahead: Advances in Prosimian Biology*. **Springer**

**Essays**

51. **Siemers BM**, Kalko EKV, Brumm H (2007) Perspektiven der Verhaltensbiologie. In Wägele JW (Hg.) *Höhepunkte der Zoologischen Forschung im deutschsprachigen Raum – 100 Versammlungen (der) DZG*. **Basilisken-Press**, Marburg: 181-203

**Conference volumes:**

52. Apfelbach R, Fendt M, Krämer S, **Siemers BM** (2001) *Advances in Ethology 36: Contributions to the XXVII Ethological Conference*. Supplements to **Ethology**, Blackwell, Berlin, Vienna

**Scientific book reviews:**

53. **Siemers BM** (2004) Review of *Echolocation in bats and dolphins*. By Thomas JA, Moss CF, Vater M. **Acta Zoologica** 85: 263

**Popular books:**

54. **Siemers B**, Nill D (2000) *Fledermäuse – das Praxisbuch*. 128 pp., **BLV**, München (2. Auflage 2002)
55. Nill D, **Siemers B** (2001) *Fledermäuse – eine Bildreise in die Nacht*. 160 pp., **BLV**, München (French translation 2003: *Grand guide encyclopédique des chauves-souris*, Artémis, Chamalières)

**Plus currently 55 published abstracts from conference presentations**