

## Curriculum vitae

### **Personal information**

Name	Carsten Schradin
Address	Institute of Evolutionary Biology and Environmental Studies, Department of Animal Behavior, University of Zurich, Winterthurerstrasse 190, 8057 Zurich, Switzerland.
Phone	+41 – (0)44- 635 5486
e-mail	<a href="mailto:carsten.schradin@ieu.uzh.ch">carsten.schradin@ieu.uzh.ch</a>
Homepage	<a href="http://www.strippedmouse.com">www.strippedmouse.com</a> <a href="http://www.ieu.uzh.ch/research/behaviour/endocrinology.html">http://www.ieu.uzh.ch/research/behaviour/endocrinology.html</a>
Date of birth	19.07.1972
Place of birth	Gaildorf (Germany)
Marital status	Married
Children	Two
Nationality	German
Current position	Group leader, Institute of Evolutionary Biology and Environmental Studies, Department of Animal Behavior, University of Zurich, Switzerland. Honorary Associate Professor at the School of Animal, Plant and Environmental Sciences, University of the Witwatersrand, Johannesburg, South Africa.

### **Major achievements**

- 2009: Invited symposium speaker at the annual meeting of the German Zoological Society.
- 2006: Establishment of the enzyme immunoassay (hormone) laboratory at the Department of Animal Behavior, University of Zurich.
- 2005: Fritz-Frank-Förderpreis, award for young scientists from the Deutsche Gesellschaft für Säugetierkunde (German Society of Mammalogy).
- 2001: Establishment of the Succulent Karoo Research Station in South Africa: combination of field and laboratory work establishing the striped mouse as an example to study alternative reproductive tactics, paternal care, communal breeding and group living.

### **Research interest**

Understanding social evolution and evolved physiological mechanisms which allow animals to behave adaptively in their changing natural environment. I seek to understand the ultimate and proximate causes of social behavior in small mammals, including evolutionary, ecological and physiological and reasons. Thus, I want to break down the barrier between ultimate and proximate research.

### **Current research team**

1 postdoc, 2 PhD students, 1 MSc student, 1 research station manager, 2 field assistants.

### **Professional appointments**

- January 2011 Appointment as Honorary Associate Professor at the School of Animal, Plant and Environmental Sciences, University of the Witwatersrand, Johannesburg, South Africa.
- Since October 2005 Group leader, Institute of Evolutionary Biology and Environmental Sciences, Department of Animal Behavior, University of Zurich, Switzerland.
- June 2001 – September 2005 Postdoctoral scientist at the School of Animal, Plant and Environmental Sciences, University of the Witwatersrand, Johannesburg, South Africa.

### **Education**

10. November 2008 Habilitation at the Faculty of Sciences, University of Zurich. Venia Legendi in Zoology.  
Habilitation thesis: "Ultimate and Proximate Aspects of Social Flexibility in the African Striped Mouse (*Rhabdomys pumilio*) as an Example."
- 19<sup>th</sup> April 2001 PhD in Anthropology (Dr. sc. nat).  
Dissertation thesis: "Paternal Care in New World Monkeys with Special Reference to the Goeldi's Monkey (*Callimico goeldii*)".  
Under supervision of Dr. G. Anzenberger and Prof. Dr. R.D. Martin.
- 1997-2001 PhD thesis at the Anthropological Institute, University of Zurich, Switzerland.
- 1994-1997 Ludwig-Maximilians-University Munich (Germany); diploma in biology; main subject Zoology, minor subjects Anthropology, Ecology and Psychology.  
Diploma thesis at the Max-Planck-Institute for Behavioural Physiology, Seewiesen (Germany).  
Diploma thesis: "Sex-biased emigration in the shell-dwelling cichlid fish *Neolamprologus multifasciatus*: ultimate and proximate causes".  
Grade of the diploma: 1.0 (passed with distinction). Supervisor: Prof. Dr. Jürg Lamprecht
- 1992-1994 University Stuttgart Hohenheim (Germany); Vordiplom in biology.

### **Professional experience**

- June 2009 Visiting researcher at the Brain and Body Centre at the University of Illinois, Chicago. Learning IHC in the laboratory of Prof. Sue Carter.
- 2006 Attended course "Training for persons responsible for directing animal experiments", corresponding to FELASA-Category C.
- Since Sept 2001 Field studies in the Succulent Karoo of South Africa (Goegap Nature Reserve). Establishment of the Succulent Karoo Research Station.
- June 2003 and May - July 2002 Visiting researcher at the University of Zurich and the Technical University of Zurich (Eidgenössischen Technischen Hochschule Zürich, ETH). Hormone measurements.
- 1998-2001 Organization of a graduate student meeting at the Anthropological Institute of the University of Zurich, enabling discussion between students.
- 1999-2001 ISIS (International Species Information System) representative for the colony of Goeldi's monkeys (*Callimico goeldii*) of the Anthropological Institute, University Zurich.

- Aug 2000            Field study on the pygmy marmoset (*Cebuella pygmaea*).  
Observations and capture of wild marmosets.
- Feb 2000            University of California, Davis, USA. Research on hormonal  
correlates of paternal care in the titi monkey (*Callicebus moloch*),  
laboratory analysis.

**Changing research themes**

- 2011-now           Evolutionary endocrinology: heritability and fitness consequences of  
individual variation in physiological processes
- 2010-now           Ecophysiology: hormones, metabolism and behavior
- 2009-now           Personality traits in striped mice
- 2005-now           Social flexibility
- 1999-now           Behavioral endocrinology of parental behavior
- 2005-2009          Evolution of monogamy in round-eared elephant shrews
- 2001-2003          Paternal care in African striped mice
- 1999                Confusion effect in reptiles and primates
- 1997-2001          Paternal care in New World monkeys
- 1997                Sex biased emigration and dynamics in complex social groups

**Research management**

- 2006                Establishment of the striped mouse colony at the Institute of  
Evolutionary Biology and Environmental Sciences, University of  
Zurich.
- 2005                Establishment of the enzyme-immuno assay laboratory at the  
Institute of Evolutionary Biology and Environmental Sciences,  
University of Zurich.
- 2005                Independent group leader at the Institute of Evolutionary Biology  
and Environmental Sciences, University of Zurich.
- 2001                Establishment of the Succulent Karoo Research Station in South  
Africa. Head of the research station.

**Awards and fellowships**

- 2005                2005: Fritz-Frank-Förderpreis, Deutsche Gesellschaft für  
Säugetierkunde (German Society of Mammalogy).

**Third party funding**

**Total: Euro 1 165 745**

**Fellowships**

<b>Year</b>	<b>Fellowship</b>	<b>Amount</b>	<b>Amount in Euro</b>
2012-2015 - pending	German Science Foundation: position for 3 years, BAT ib/E14		147600
2004 – 2005	Claude Harris Leon Foundation (Cape Town, South Africa).	180000 ZAR	22000
2003 – 2004	Forschungsstipendium, German Science Foundation for postdoctoral work in South Africa.		29976
2001 – 2003	Grant of the Swiss National Science Foundation for postdoctoral work in South Africa.	74140 CHF	50000

**Main Projects as Principal Investigator:**

<b>Year</b>	<b>Project and Organisation</b>	<b>Amount</b>	<b>Amount in Euro</b>
2012-2015 - pending	German Science Foundation: Eco-physiology of a socially flexible mammals living in a semi desert.		266400
2011-2014	Swiss National Science Foundation: Evolutionary adaptive physiological processes of social flexibility.	359708 CHF	276690
2010-2012	Cogito Foundation: Personality traits in striped mice: ecology and physiological regulation	30000 CHF	22000
2009 - 2011	FAN (foundation for junior scientists of the University of Zurich, Switzerland): Hormones, Metabolism and Behavior: Interactions and Causal Relationships	100 000 CHF	66 666
2008 - 2011	Swiss National Science Foundation: Social flexibility in a mammal: environmental and endocrine causes and consequences	279000 CHF	174375
2006 - 2008	Holcim and Vontobel Foundation, Switzerland: Social flexibility in African striped mice.	84900 CHF	59000
2006 - 2008	National Geographic Foundation: Evolution of monogamy in round-eared elephant shrews.	17500 US\$	14000
2002	FAN (foundation for junior scientists of the University of Zurich, Switzerland): Paternal care in African striped mice.	300000 CHF	20000

**Small grants**

<b>Year</b>	<b>Organisation</b>	<b>Amount</b>	<b>Amount in Euro</b>
2011	baumgartenstiftung, Universität Zürich: „Eco-Physiology and Climate Change“	12000 CHF	9200
	SSJARP travel grant	1300 CHF	1080

2010	Helene Bieber Fonds	7000 CHF	5000
	SSJARP travel grant	1500 CHF	1100
	Equipment grant University of the Witwatersrand	28000 ZAR	3000
2008	Zürcher Universitätsverein	3000 CHF	1875
	Helene Bieber-Fond Zürich	3000 CHF	1875
	Donations from the email newsletter <i>FSM-TIMES</i> .	3419 EURO	3419
	Promotorstiftung, for research station car	19000 CHF	12600
2007	Julius Klaus-Stiftung	9000 CHF	5450
	Donations from the email newsletter <i>FSM-TIMES</i> .	1000 EURO	1000
2006	Donations from the email newsletter <i>FSM-TIMES</i> .	1000 Euro	1000
2005	Ethologische Gesellschaft	165 Euro	165
	Donations from the email newsletter <i>FSM-TIMES</i> .	1000 Euro	1000
2004	Ethologische Gesellschaft (Germany)	1300 Euro	1300
	Swiss Society for Natural Sciences	1500 CHF	
	Foundation for junior scientists of the University of Zurich, Switzerland	300000 CHF	1000
2002	Equipment grant University of the Witwatersrand	35000 ZAR	4300
	Swiss National Science Foundation	3000 CHF	2000
	Swiss Society for Natural Sciences	1262 CHF	840
2001	Swiss National Science Foundation	3000 CHF	2000
	Swiss Society for Natural Sciences	1782 CHF	1200
	A.H. Schultz Foundation, Zurich	5000 CHF	3300

**Referee for following funding bodies**

- French National Research Agency (ANR)
- National Environment Research Council U.K. (NERC)
- National Research Foundation South Africa
- National Science Foundation USA
- Swiss National Science Foundation

**Referee for following journals**

African Zoology; American Naturalist, Animal Behaviour; Austral Ecology; Behaviour; Behavioral Ecology; Behavioral Ecology and Sociobiology; Biology Letters; Ecography; Ethology; European Journal of Wildlife Research; Functional Ecology; Hormones and Behavior; Journal of Anatomy; Journal of Ethology; Journal of Mammalogy; Mammalian Biology; Mastozoologia Neotropical; Physiology and Behavior; Proceedings of the Royal Society of London, Series B; Reproduction, Fertility and Development.

**Invited plenary and symposium contributions**

- December 2011 Invited symposium speaker, 8<sup>th</sup> Göttinger Freilandtage, "Behavioral Constraints and Flexibility".
- February 2011 Invited plenary speaker at the annual meeting of the German Ethological Society (Thementagung; Zurich, Switzerland).

September 2009 Invited symposium speaker at the annual meeting of the German Zoological Society DZG (Regensburg, Germany).

October 2003 Invited to the 92. Dahlem Conference in Berlin: "Attachment and Bonding: A New Synthesis".

### **Services for the public and transfer of research results**

2008: Expert for Science Fair ("Jugend Forscht") Switzerland.

2007: Popular science book on animal and human fathers published: "Die Biologie des Vaters: Was uns die Verhaltensforschung über Väter berichten kann." Filander Verlag, Fürth, Germany. This led to several reports in the press: TV, radio, magazine and newspapers.

Eight popular science articles by myself and more than 20 reports in the media (TV, radio, magazines, newspapers, internet) about my research.

### **Collaborations**

- Prof. Dr. K. Bales, University of California Davis, U.S.A. AVP 1a receptor measurements in *Rhabdomys pumilio*.
- Dr. S. Blanc, Institut Pluridisciplinaire Hubert Curien Strasbourg (CNRS), Département Ecologie, Physiologie et Ethologie. Ecophysiology, metabolism, stable isotopes.
- Prof. Dr. C. Carter, University of Chicago, U.S.A. Neuropeptide measurements in brains of *Rhabdomys pumilio*.
- Dr. J. Johannesen, University of Mainz, Germany. Population genetics in *Rhabdomys pumilio*.
- Prof. Dr. M. Heinrichs, Department of Psychology, Laboratory for Biological and Personality Psychology, University of Freiburg, Germany. Personality research in striped mice.
- Prof. Dr. H.E. Hoekstra, Harvard University. The evolution and development of stripes in striped mice.
- Dr. A. Lindholm, Institute of Evolutionary Biology and Environmental Studies, University of Zurich, Switzerland. Socio-genetics of *Rhabdomys pumilio*.
- Prof. N. Pillay, University of the Witwatersrand, South Africa. Socio-ecology of *Rhabdomys pumilio*.
- Prof. M. Sanchez, Palaeontological Institute and Museum, University of Zurich, Switzerland. Project: Neonatal ossification in *Rhabdomys pumilio*.
- Dr. M. Scantlebury, School of Biological Sciences, Queen's University Belfast. U.K., basking behaviour in *Rhabdomys pumilio*.

### **Society memberships**

- Deutsche Gesellschaft für Säugetierkunde (German Society of Mammalogy)
- Ethologische Gesellschaft (Ethological Society Germany)
- Society for Behavioral Neuroendocrinology

### **Invitations for interviews (tenure or tenure-track positions)**

- 2009: Heisenberg (W3) professorship for animal behaviour at the University of Bielefeld (Germany).

### **Instructional skills development (Hochschuldidaktik at the University of Zurich)**

2011 - Basics of media didactic

- 2010 - Supervising students
- 2009 - Rhetoric seminar
- 2007 - Project management of master theses (2.5 days).  
- Leading a discussion / meeting (1 day).
- 2001 - Rhetoric and communication: How to make proper conversations (2 days).  
- Problem-based learning (2 days).
- 2000 - New forms of teaching in an interactive way (2 days).
- 1999 - Lectures have to be in a way that the students understand you (2 days).  
- Basic course for lecturers (2 days).  
- Learning and teaching with the World Wide Web (2 days).

#### **Mentoring of postdoctoral students**

- 2011 J. Ho (graduate Indiana University, USA), proposal for “Metabolism, Ecology and Social Flexibility: From the Environment to the Brain”.
- 2010 Dr. D.L. Hill (graduate Manchester University, UK), postdoc on the project “Alternative female reproductive tactics”

#### **Supervision of students**

3 PhD students

11 MSc (and diploma) students

> 50 undergraduate students

- 2011 Supervision of one MSc student, Queens University of Belfast (J. Maye, together with Dr. M. Scantlebury).
- Since 2010 Supervision of PhD student, Julien Raynaud, University of Zurich: “Hormones, Metabolism and Behavior: Interactions and causal relationships”.
- 2009/2010 Supervision of one MSc student, University of Basel (M. Wastavino, together with Prof. D. Ebert).
- Since April 2008 Supervision of PhD student, Ivana Schoepf, University of Zurich: “Social flexibility in a mammal: environmental and endocrine causes and consequences”.
- 2008/2009 Supervision of two diploma students, University of Mainz, together with Dr. Johannesen (N. Solmsen and S. Weick).
- 2008 Supervision of one MSc student, University of Zurich (D. Lehmann).
- 2007/2008 Supervision of one MSc student, University of Zurich (G. Schmohl).
- September 2005 Member of the PhD evaluation committee of Tasmin Rymer (University of the Witwatersrand): “Paternal care in the striped mouse *Rhabdomys pumilio*: ontogeny and function.”
- 2005-2009 Supervising PhD student, Melanie Schubert, University of Bayreuth, Germany (together with Prof. D. von Holst): “Monogamy in the round-eared elephant shrew.”
- June 2004 to April 2005 Supervising projects of three diploma students from Germany, together with Prof. Dr. Sachser (University of Münster, Germany; 2 students: C. Keller and C. Schneider) and Prof. Dr. D. von Holst (University of Bayreuth: M. Schubert).
- Since September 2001 Supervision of >50 undergraduate students (from Denmark, Germany, France, Hong Kong, South Africa, Switzerland, the U.K., and the USA), who worked as field assistants

- 2001 at my research station in the Goegap Nature Reserve.  
Supervision of one diploma student, together with Prof. Dr. R.D. Martin, University of Zurich (J. Zingg).
- 2000 Supervision of one diploma student, together with Dr. G. Anzenberger, University of Zurich (S. Pika).

**External reviewing of theses**

- 2010 External review PhD thesis T.K. Lötter: "Sociality and reproductive biology of the Bushveld Gerbil *Gerbilliscus leucogaster*". University of the Witwatersrand, Johannesburg, South Africa.
- 2006 External review PhD thesis T.J. Hibbitts: "Ecology and Sexual Selection of the Common Barking Gecko (*Ptenopus garrulus*)". University of the Witwatersrand, Johannesburg, South Africa.

**Teaching graduate level**

- 2009-2010 BIO 349: Theories and methods in behavioral endocrinology. Students learn how to conduct hormone assays and how to interpret the results.
- 2007-2010 BIO 331: Frontiers in Animal Behaviour. Lectures.
- 2006-2010 BIO 324: "Verhaltensbiologie". 7 weeks advanced practical course for Master students; practical training of 2 undergraduate students.
- 2006-2010 BIO 620 Literature seminar on animal behavior (1 semester).
- 1999-2000 Lectures and practicals in "Verhalten der Primaten". (Behaviour of primates; University Zürich).

**Teaching undergraduate level**

- 2006-2010 BIO 122: "Verhalten und Hormonphysiologie". 4 hours of lectures about hormones and behavior in addition to three afternoons of practical training for students.
- 2008-2010 BIO 358 Forschungspraktikum Verhaltensbiologie. 4-12 weeks of supervision of one undergraduate student. Two students each year.
- April 2005 Supervision of 10 undergraduate students from the University of the Witwatersrand during a one week field trip to Goegap Nature Reserve.
- 2001 Lectures and practical in "Behavioural and Evolutionary Ecology" (1 semester, 6 hours/ week; University of the Witwatersrand).
- 1998-2001 Lectures in "Gesellschaftsformen der Primaten II". (Social organisation of primates; together with G. Anzenberger; University Zürich).
- 2000 "Naturschutzbiologie der Primaten". (Conservation biology of primates; together with G. Anzenberger; University Zürich).

**Publications****45 publications, first author on 35, last author on 7 of them.****Number of citations: 535****h-index: 16**

Journal	Number of publications	Impact factor	Total impact
News in Physiological Sciences (now: Physiology)	1	7	7
Molecular Ecology	2	6	12
American Naturalist	1	5	5
Functional Ecology	2	5	10
Biology of Reproduction	1	4	4
Hormones and Behavior	3	4	12
Journal of Animal Ecology	2	4	8
Journal of Human Evolution	1	4	4
Proceedings of the Royal Society of London B	1	4	4
Animal Behaviour	3	3	9
Behavioral Ecology	3	3	9
Behavioral Ecology and Sociobiology	3	3	9
Frontiers in Zoology	1	3	3
Ethology	4	2	8
Journal of Comparative Psychology	3	2	6
Journal of Mammalogy	3	2	6
Journal of Zoology	1	2	2
Organisms Diversity & Evolution	1	2	2
Physiology and Behavior	1	2	2
American Journal of Primatology	2	1	2
Belgian Journal of Zoology	1	1	1
Biodiversity and Conservation	1	1	1
Canadian Journal of Zoology	1	1	1
Journal of Ethology	2	1	2
Mammalian Biology	1	1	1
<b>Summary</b>	<b>45</b>		<b>130</b>

**Publications (reviewed journals)**

- Accept. **Schradin, C.**, Lindholm, A.K., Johannesen, J., Schoepf, I., Yuen, C.H., König, B. & Pillay, N. accept. Social flexibility as a tool to understand social behaviour. *Molecular Ecology*.
- 2011 **Schradin, C.** & Lindholm, A.K., in press. Relative fitness of alternative male reproductive tactics in a mammal varies between years. *Journal of Animal Ecology*. Doi: 10.1111/j.1365-2656.2011.01831.x
- Solmsen, N., Johannesen, J. & **Schradin C.**, 2011. Highly asymmetric fine-scale genetic structure between sexes of African striped mice indicate alternative male dispersal tactics *Molecular Ecology* **20**: 1624-1634.
- 2010 Scantlebury, M., Bennett, N., Pillay, N. & **Schradin, C.** 2010. Basking is affected by season and influences oxygen consumption in desert-living striped mice. *Journal of Zoology*. **281**: 132-139.
- Schradin, C.**, Schmohl, G., Rödel, H.G., Schoepf, I., Treffler, S.M., Brenner, J., Bleeker, M., Schubert, M., König, B. & Pillay, N. 2010. Female home

- range size is regulated by resource distribution and intraspecific competition: a multi-faceted, long term field study on African striped mice. *Animal Behaviour* **79**: 195-203.
- Schradin, C.**, König, B. & Pillay, N. 2010. Reproductive competition favours solitary living while ecological constraints impose group-living in African striped mice. *Journal of Animal Ecology* **73**: 515-521
- Schradin, C.**, Schneider, C. & Lindholm, A.K. 2010. The nasty neighbor in the striped mouse (*Rhabdomys pumilio*) steals paternity and elicits aggression. *Frontiers in Zoology* **7**:19.
- Wilson, L.A.B., **Schradin, C.**, Mitgutsch, C., Galliari, F.C., Trillmich, F., Andrea Mess, A., Sánchez-Villagra, M.R. 2010. Skeletogenesis in the African striped mouse (*Rhabdomys pumilio*) and a study of sequence heterochrony in rodent evolution. *Organisms Diversity and Evolution* **10**: 243-258.
- 2009 **Schradin, C.**, Kinahan, A.A. & Pillay, N. 2009. Cooperative breeding in groups of synchronously mating females demands large testes to avoid sperm depletion. *Biology of Reproduction* **81**: 111-117.
- Schradin, C.**, Scantlebury, M., Pillay, N. & König, B. 2009. Testosterone levels in dominant sociable males are lower than in solitary roamers: Physiological differences between three male reproductive tactics in a sociably flexible mammal. *American Naturalist* **173**, 376-388.
- Schradin, C.**, Schneider, C., Yuen, C.H. 2009. Age at puberty in male African striped mice: the impact of food, population density and the presence of the father. *Functional Ecology* **23**: 1004-1013.
- Schubert, M., Pillay N. & **Schradin, C.** 2009. Parental and allo-parental care in a polygynous mammal. *Journal of Mammalogy* **90**: 724-731.
- Schubert, M., Pillay, N., Ribble, D. & **Schradin, C.** 2009. The round-eared sengi and the evolution of social monogamy: Environmental parameters constrain males to live with a single female. *Ethology* **115**: 972-985.
- Schubert, M., **Schradin, C.**, Pillay, N. & Ribble, D. 2009. Male mate guarding in a socially monogamous mammal: On costs and trade-offs. *Behavioral Ecology and Sociobiology*. **64**: 257-264.
- 2008 Keller, C. & **Schradin, C.** 2008. Plant and small mammal richness correlate positively in a biodiversity hotspot *Biodiversity and Conservation* **17**, 911-923.
- Rymer, T., **Schradin, C.** & Pillay, N. 2008. Social transmission of information about novel food in two populations of the African striped mouse *Rhabdomys pumilio*. *Animal Behaviour* **76**, 1297-1304.
- Schradin, C.** 2008. Differences in prolactin levels between three alternative male reproductive tactics in striped mice (*Rhabdomys pumilio*). *Proceedings of the Royal Society of London B* **275**, 1047-1052.
- Schradin, C.** 2008. Seasonal changes in testosterone and corticosterone levels in four social categories of a desert dwelling sociable rodent. *Hormones and Behavior* **53**, 573-579.
- 2007 Hoffmann, M., **Schradin, C.** & Geisman, T. 2007. Radiographic evaluation of neonatal skeletal development in *Callimico goeldii* reveals closer similarity to *Callithrix jacchus* than to *Saguinus oedipus*. *American Journal of Primatology* **69**, 1-14.
- Schradin, C.** 2007. No information transfer of food sites in a group living

- solitary forager. *Journal of Ethology* **25**, 83-86.
- Schradin, C.** 2007. Schradin, C. 2007. Comments to K.E. Wynne-Edwards & M.E. Timonin. Paternal care in rodents: Weakening support for hormonal regulation of the transition to behavioral fatherhood in rodent animal models of biparental care. *Hormones and Behavior*. **52**, 557-559.
- Schradin, C.**, Krackow, S., Schubert, M., Keller, C., Schradin, B. & Pillay, N. 2007. Regulation of activity pattern in desert-living striped mice: The importance of basking. *Ethology* **113**, 606-614.
- 2006 **Schradin, C.** 2006. Whole day follows of the striped mouse. *Journal of Ethology* **24**, 37-43.
- Schradin, C.** & Pillay, N. 2006. Female striped mice (*Rhabdomys pumilio*) change their home ranges in response to seasonal variation in food availability. *Behavioral Ecology* **17**, 452-458.
- Schradin, C.**, Schubert, M. & Pillay, N. 2006. Winter huddling groups in the striped mouse. *Canadian Journal of Zoology* **84**, 693-698
- Scantlebury, M., Pillay, N., Speakman, J.R., Bennett, N.C., & **Schradin, C.** 2006. Huddling in groups leads to daily energy savings in free-living African four-striped grass mice *Rhabdomys pumilio*. *Functional Ecology* **20**, 166-173.
- 2005 **Schradin, C.** 2005. Nest side competition in diurnal rodents from the succulent karoo of South Africa: The striped mouse (*Rhabdomys pumilio*) against the bush karoo rat (*Otomys unisulcatus*). *Journal of Mammalogy* **86**, 757-765.
- Schradin, C.** 2005. When to live alone and when to live in groups: ecological determinants of sociality in the African striped mouse (*Rhabdomys pumilio*, Sparman, 1784). *Belgian Journal of Zoology* **135**, 77-82.
- Schradin, C.** & Pillay, N. 2005. The influence of the father on offspring development in the striped mouse. *Behavioral Ecology* **16**, 450-455.
- Schradin, C.** & Pillay, N. 2005. Demography of the striped mouse (*Rhabdomys pumilio*) in the succulent karoo: a unique population in an extreme environment. *Mammalian Biology*. **70**, 84-92.
- Schradin, C.** & Pillay, N. 2005. Intraspecific variation in the spatial and social organization of the African striped mouse. *Journal of Mammalogy* **86**, 99-107.
- 2004 **Schradin, C.** 2004. Territorial defence in a group living solitary forager: who, where against whom? *Behavioural Ecology and Sociobiology* **55**, 439-446.
- Schradin, C.** & Anzenberger, G. 2004. Development of prolactin levels in marmoset males: from helper to first-time father. *Hormones and Behavior* **46**, 670-677.
- Schradin, C.** & Pillay, N. 2004. Prolactin levels in paternal striped mouse (*Rhabdomys pumilio*) fathers. *Physiology & Behavior* **81**, 43-50.
- Schradin, C.** & Pillay, N. 2004. The striped mouse from the succulent karoo of South Africa: A territorial group living solitary forager with communal breeding and helpers at the nest. *Journal of Comparative Psychology*, **118**, 37-47.
- 2003 **Schradin, C.** & Anzenberger, G. 2003. Mothers, not fathers, determine the delayed onset of male carrying in Goeldi's monkey (*Callimico goeldii*). *Journal of Human Evolution* **45**, 389-399.

- Schradin, C.** & Pillay, N. 2003. Paternal care in the social and diurnal striped mouse (*Rhabdomys pumilio*): laboratory and field evidence. *Journal of Comparative Psychology* **117**, 317-324.
- Schradin, C.**, Reeder, D., Mendoza, S. & Anzenberger, G. 2003. Prolactin and paternal care: comparison of three species of monogamous New World monkeys (*Callicebus cupreus*, *Callithrix jacchus*, and *Callimico goeldii*). *Journal of Comparative Psychology* **117**, 166-175.
- 2002 **Schradin, C.** & Lamprecht, J. 2002. Female emigration in the group living cichlid fish *Neolamprologus multifasciatus*. *Ethology* **108**, 237-248.
- 2001 **Schradin, C.** & Anzenberger, G. 2001. Costs of infant carrying in common marmosets, *Callithrix jacchus*: an experimental analysis. *Animal Behaviour* **62**, 289-295.
- Schradin, C.** & Anzenberger, G. 2001. Infant carrying in family groups of Goeldi's monkeys (*Callimico goeldii*). *American Journal of Primatology* **53**, 57-67.
- 2000 **Schradin, C.** 2000. Confusion effect in a reptilian and a primate predator. *Ethology* **106**, 691-700.
- Schradin, C.** & Lamprecht, J. 2000. Female-biased immigration and male peace keeping in groups of the shell-dwelling cichlid fish *Neolamprologus multifasciatus*. *Behavioural Ecology and Sociobiology* **48**, 236-242. [Research report by *Nature* about Schradin & Lamprecht, 2000: <http://www.nature.com/nsu/000000803/000803-1.html>]
- 1999 **Schradin, C.** & Anzenberger, G. 1999. Prolactin, the hormone of paternity. *News in Physiological Sciences* **14**, 223-231.

#### Publications under review

- Schoepf, I. & **Schradin, C.** Better off alone! Reproductive competition and ecological constraints determine sociality in the African striped mouse (*Rhabdomys pumilio*).

#### Non-reviewed papers and book chapters (abstracts are excluded)

- 2005 Leckman, J. F., Carter, C. S., Hennessey, M. B., Hrdy, S. B., E.B. Keverne, Klann-Delius, C., **Schradin, C.**, Todt, D. & Holst, D. v. 2005. Biobehavioral processes in attachment and bonding. In: *Attachment and Bonding: A New Synthesis. Dahlem Workshop Report 92* (Ed. by C.S. Carter and L. Ahnert). pp. 301-348. Cambridge, MA: The MIT Press.
- 2002 **Schradin, C.** 2002. Die vier Fragen Tinbergens und väterliches Verhalten. In: *Gruppenmechanismen* (Ed. U. Gansloßer). pp. 29-48. Filander Verlag, Fürth.
- Schradin, C.** & Anzenberger, G. 2002. Why do New World monkey fathers have enhanced prolactin levels? *Evolutionary Anthropology (Supplement)*. **1**, 122-125.
- 2001 **Schradin, C.** 2001. Prolaktin, das Elternhormon. Praxis der Naturwissenschaften: Biologie in der Schule. **5**, 24-30.
- 1998 **Schradin, C.** 1998. Intraspezifische Konkurrenz. Translation from English into German. In: *Ökologie, Begon, M.E., Harper, J.L. & Townsend, C.R. (Eds.): Spektrum Verlag, Heidelberg*, pp. 139-204.
- 1992 **Schradin, C.** 1992. Vorschlag zur Katalogisierung einer Sammlung. *Entomologische Zeitschrift*, **102**, 318-319.

**Popular science (majority in German)**

- 2004 - 2010 SGM-Spiegel (in German) and FSM-Times (in English), free popular science email newsletter providing information about the projects at the *Succulent Karoo Research Station*: [www.strippedmouse.com](http://www.strippedmouse.com). In so far 28 issues have been published. Approx 3000 downloads per issue.
- 2008 **Schradin, C.** 2008. Der Vater im Manne? *Jaeger* **3/2008**, 6-9.  
**Schradin, C.** 2008. Le comportement paternel chez les animaux sauvages indigenes. *Chasse et Nature* 23. (Translated article).
- 2007 **Schradin, C.** 2007. Die Biologie des Vaters: Was uns die Verhaltensforschung über Väter berichten kann. Filander Verlag, Fürth, Germany. Popular science book.  
**Schradin, C.** 2007. Väterliches Verhalten bei einheimischen Wildtieren. *Wildbiologie* **8/16**, 16 pages.
- 2006 **Schradin, C.** 2006. Die Elefantenspitzmaus – die kleine Verwandte der grauen Riesen. *Rodentia* **30**.  
Sommer, V. & **Schradin, C.** 2006. Ach, Männer. Popular science article about fathers. *Weltwoche* 31/06.
- 2005 **Schradin, C.** 2005. Im Jahr der Maus. Teil 2: Das Leben von Striemengrasmaus-Weibchen Nr. 23. *Rodentia* **25**, pp. 28-30.  
**Schradin, C.** 2005. Im Jahr der Maus. Teil 1: „Kindheit und Jugend“ von Striemengrasmaus-Weibchen Nr. 23. *Rodentia* **24**, 41-43.  
**Schradin, C.** 2005. Namaqualand: Ein Biodiversitäts- und Kleinsäugerhotspot. *Rodentia* **23**, 26-30.

**Popular reports about my research projects**

- 2010 There have been several newspaper reports in Germany and Switzerland about our study published in *Frontiers in Zoology*, including one in the *Süddeutsche Zeitung* and on <http://www.sciencedaily.com/releases/2010/06/100622191928.htm>.  
Guest on German TV, Planet Wissen, broadcast on “Rats and Mice”). June 2010.  
Mal als Single, mal als Gruppe. 19. February 2010. Short report in the newspaper 20minuten.  
Fuchs, M. 15. February 2010. Überlebenskünstler im afrikanischen Busch. UZH-News, report on the website of the University of Zurich.
- 2009 Blöchlinger, B. Striemengrasmäuse: Testosteron und Risikofreudigkeit. Report on the website of the University of Zurich by unipublic.  
Telegraph (Newspaper in the U.K.). 23 Feb. 2009. Nice guys get the girls. Report about our publication in the *American Naturalist*.
- 2008 Radio broadcast about animal fathers (27 min), interview with Carsten Schradin about paternal care. 30. April 2008. *IQ - Wissenschaft und Forschung from Bayern 2*.  
Boehme, N. 2008. Fürsorgliche Väter. Ein Herz für Tiere, March 2008.
- 2007 Kraft, U. 23. August 2007. Ein bisschen schwanger. Handelsblatt.  
Boehme, N. 2007. Väter in Nadelstreifen. Interview with me about my field work and paternal care. Ein Herz für Tiere, July 2007.  
Blöchlinger, B. Die Biologie des Vaters. Report on the website of the University of Zurich by unipublic.  
Blöchlinger, B. Von polygamy bis solitary: Die Striemengrasmaus. Report on

- the website of the University of Zurich by unipublic.
- Reye, B. Gute Väter statt arrogante Machos. Report in the Switzerland largest newspaper *Tages Anzeiger*.
- Tschudin, M. Das turbulente Liebesleben der Striemengrasmäuse. TV documentary of 12min. Appeared:  
 1. January, *MTW*, SF1 (Swiss TV 1).  
 24. and 25. January, *Nano*, 3 SAT (German TV).  
 January on five public regional German TV stations (RBB, SWR, WDR, MDR und BRalpha).  
 11., 12. and 13. February in the science magazine *Tomorrow Today* of Deutsche Welle TV (worldwide broadcast) in English.  
 11., 12. and 13. February in the science magazine *Projekt Zukunft* of Deutsche Welle TV in German.
- Tschudin, P. Vaterschaftskonzepte im Tierreich. Interview about the book „Biology des Vaters“ on the Swiss radio station DRS2 in the broadcast drsaktuell. 4 minutes.
- 2005 Wiedon, A. Fürsorglich und Flexible; Die Striemengrasmaus. *Biologie in unserer Zeit* **35**, 226-227.
- Vaterliebe nach Bedarf. *Horizonte* (magazine of the Swiss National Science Foundation), March, p. 8. Report about Schradin & Pillay 2005, *Behavioral Ecology***35**, 266-267.
- 2001 Papa wartet. National Geographic Germany, October, p. 14. Report about my research on Goeldi's monkeys (*Callimico goeldii*).
- 2000 Research report by *Nature* about Schradin & Lamprecht, 2000: <http://www.nature.com/nsu/000000803/000803-1.html>.

**Presentations as first author**

	Invited talk	Talk international conference	Poster international conference	Talk national conference	Poster national conference	Talk Department
2011	3			1		
2010	2	1				1
2009	7		1	1		
2008	3	1	1		1	2
2007	2			1		
2006	3					1
2005		1				
2004		1				1
2003	1	1		2		
2002	1	1				
2001	3	1		2		1
2000	2	1	1	1		
1999		2		2		
1998				1	1	
<b>SUM</b>	<b>26</b>	<b>10</b>	<b>3</b>	<b>11</b>	<b>2</b>	<b>6</b>

- 2011 Schradin, C. 29. June 2011. Adaptive Responses to an Unpredictable Environment: Behavior, Physiology and Evolution. Invited talk,

- Evolutionary Biology and Animal Ecology, University of Stellenbosch, South Africa.*
- Schradin, C. 14. April 2011. Personality in a socially-flexible mammal: ecology, physiology and behavior, *Biological and Personality Psychology, University of Freiburg, Germany.*
- Schradin, C. 13. April 2011. Adaptive Responses to an Unpredictable Environment: Behavior, Physiology and Evolution. Invited talk, *Evolutionary Biology and Animal Ecology, University of Freiburg, Germany.*
- Schradin, C. 18. February 2011. Social flexibility: trade-off between conflict and cooperation. Plenary talk, *meeting of the German Ethological Society, Zurich, Switzerland.*
- 2010 Schradin, C. 10. December 2010. Adaptive Responses to an Unpredictable Environment: Behavior, Physiology and Evolution. Invited talk, *Institut Pluridisciplinaire Hubert Curien, Strasbourg, France.*
- Schradin, C. 12. October 2010. Habitat saturation and reproductive competition: social and genetic effects in the African striped mouse. Talk, *Symposium: Social Systems: Demographic and Genetic Issues. Paimpont, France.*
- Schradin, C. 27. May 2010. Blood sugar levels in free ranging striped mice: physiology and ecology of a desert species. Invited talk, *University hospital, Department of Endocrinology, Diabetology & Nutrition, Zurich, Switzerland.*
- 2009 Schradin, C. 26. October 2009. Social Flexibility: An integrative approach to understand ultimate reasons and proximate mechanisms of social behavior. Invited talk, *Institute of Evolutionary Biology, University of Basel, Switzerland.*
- Schradin, C. 30. September 2009. How small mammals cope with the extreme conditions in the Succulent Karoo desert. Invited talk, *University of Zurich, Veterinarian Department.*
- Schradin, C. 28. September 2009. I Social Flexibility: An integrative approach to understand ultimate reasons and proximate mechanisms of social behavior. Invited symposia lecture, *annual meeting of the German Zoological Society (DZG): Regensburg, Germany.*
- Schradin, C. 15. July 2009. Social Flexibility: An integrative approach to understand ultimate reasons and proximate mechanisms of social behavior. Invited talk, *Institute of Zoo and Wildlife Research, Berlin, Germany.*
- Schradin, C. 14. July 2009. Social Flexibility: An integrative approach to understand ultimate reasons and proximate mechanisms of social behavior. Invited talk, *University of Potsdam, Germany.*
- Schradin, C. 26. June 2009. Evolved endocrine mechanisms of social flexibility. Poster, *annual meeting of the Society for Behavioral Neuroendocrinology, East Lansing, Michigan, U.S.A.*
- Schradin, C. 19. June 2009. Social Flexibility: An integrative approach to understand ultimate reasons and proximate mechanisms of social behavior. Invited talk, *Miami University, U.S.A.*
- Schradin, C. 3. June 2009. Social Flexibility: An integrative approach to understand ultimate reasons and proximate mechanisms of social behavior. Invited talk, *University of Illinois at Chicago. U.S.A.*
- Schradin, C. 12. February 2009. Evolved endocrine mechanisms of social

- flexibility: How individuals adapt to a changing environment Talk, 4. *Thementagung der Ethologischen Gesellschaft, Göttingen, Germany.*
- 2008 Schradin, C. 18. July 2008. Endocrine control of alternative male reproductive tactics in a small mammal. Talk, *European Conference on Behavioral Biology, Dijon, France.*
- Schradin, C. 9. July 2008. Endocrine control of alternative male reproductive tactics in a small mammal. Poster presentation, *Annual Meeting of the Society of Behavioral Neuroendocrinology, Groningen, Netherlands.*
- Schradin, C. 26. June 2008. Personalities in the Animal Kingdom. Trial lecture for the habilitation, *University of Zurich, Zurich, Switzerland.*
- Schradin, C. 4. June 2008. Alternative male reproductive tactics in the African striped mouse. Invited talk, *Research Institute of Wildlife Ecolog, Veterinary University of Vienna, Vienna, Austria.*
- Schradin, C. 22. May 2008. Socio-genetics of African striped mice. *Board of trustees of the Julius-Klaus Stiftung, University of Zurich, Zurich, Switzerland.*
- Schradin, C. 24. April 2008. Alternative male reproductive tactics in the African striped mouse. Invite talk, *Queens University Belfast, Belfast, U.K.*
- Schradin, C. 11. April 2008. Endocrine ecology of social flexibility. Talk, *Zoologisches Symposium, University of Zurich, Zurich, Switzerland.*
- Schradin, C. 21. February 2008. Endocrine correlates of alternative male reproductive tactics in the striped mouse. Poster, *Meeting Ethologische Gesellschaft, Regensburg, Germany.*
- 2007 Schradin, C. 25. October 2007. The Biology of the Father: Insights from Animal Behavior. Invited talk, *Research Colloquium, Department of Clinical Psychology and Psychobiology, University of Zurich, Zurich, Switzerland.*
- Schradin, C. 25. September 2007. A model to study animal's responses to global warming. Talk, *Kimberly Biodiversity Symposium, Kimberley, South Africa.*
- Schradin, C. 25. September 2007. Social flexibility in the striped mouse. Public lecture, *meeting of the South African Association of Naturalists, Kimberley, South Africa.*
- Schradin, C. 24. May 2007. Paternal care in mouse and monkey fathers. Invited talk, *German Primate Centre, Göttingen, Germany.*
- 2006 Schradin, C. 20. June 2006. Social flexibility in the striped mouse: When to live in groups and when to live alone. Invited talk, *Institute for Zoo and Wildlife Research, Berlin, Germany.*
- Schradin, C. 21. June 2006. Social flexibility in the striped mouse: When to live in groups and when to live alone. Invited talk, *Biological Institute, Humboldt University of Berlin, Germany.*
- Schradin, C. 19. May 2006. Social flexibility in the striped mouse: When to live in groups and when to live alone. Talk, *Zoological Institute, University of Zurich, Switzerland.*
- Schradin, C. 19. April 2006. Social flexibility in the African striped mouse: When to be paternal and when to search for mates. Invited talk, *Department of Behavioral Ecology, University of Bern, Switzerland.*
- 2005 Schradin, C. & Pillay, N. Paternal care in the African striped mouse: a flexible and adaptive strategy. Talk, *XXVIII International Ethological Conference, Budapest, Hungary.*
- 2004 Schradin, C. & Pillay, N. Ecological changes over years lead to social changes: from groups to solitary to groups. Talk, *Second European Conference on*

- Behavioural Ecology, Groningen, Netherlands.*
- Schradin, C. When to live in groups and when to live alone: answers from the striped mouse. Talk, *School of Animal, Plant and Environmental Sciences, University of the Witwatersrand, Johannesburg, South Africa.*
- 2003 Schradin, C. & Pillay, N. Social flexibility in the South African striped mouse (*Rhabdomys pumilio*): when to live alone and when to live in groups? Talk, *9<sup>th</sup> African Small Mammal Symposium, Morogoro, Tanzania.*
- Schradin, C. Namaqualand – in the land of mice. Video presentation, *9<sup>th</sup> African Small Mammal Symposium, Morogoro, Tanzania.*
- Schradin, C. & Pillay, N. Social flexibility in the South African striped mouse (*Rhabdomys pumilio*): when to live alone and when to live in groups? Talk, *Conference of the Zoological Society South Africa, Cape Town, South Africa.*
- Schradin, C. & Pillay, N. Social flexibility in the South African striped mouse (*Rhabdomys pumilio*): when to live alone and when to live in groups? Talk, *Meeting of the German Zoological Society, Berlin, Germany.*
- Schradin, C. Namaqualand – in the land of mice. Video presentation, *Meeting of the German Zoological Society, Berlin, Germany.*
- Schradin, C. Extreme soziale Flexibilität bei der südafrikanischen Striemengrasmaus (*Rhabdomys pumilio*): mal allein, mal vereint! Talk, *Institute of Behavioural Biology, University Zurich, Switzerland.*
- 2002 Schradin, C. Namaqualand – in the land of mice. Video presentation, *First European Conference on Behavioural Ecology, Münster, Germany.*
- Schradin, C. Namaqualand – in the land of mice. Video presentation, *Anthropological Institute, University Zurich, Switzerland.*
- Schradin, C. The socio-ecology of the striped mouse from the succulent karoo of South Africa. Talk, *Institute of Behavioural Biology, University Zurich, Switzerland.*
- Schradin, C. & Pillay, N. The four-striped mouse as a model for studying paternal care in mammals. Poster, *First European Conference on Behavioural Ecology, Münster, Germany.*
- 2001 Schradin, C. Väterliches Verhalten beim Springtamarin (*Callimico goeldii*) im Vergleich zum Weissbüscheläffchen (*Callithrix jacchus*). Talk, *Anthropologisches Institut, Universität Zürich, Switzerland.*
- Schradin, C. Väterliches Verhalten beim Springtamarin (*Callimico goeldii*) im Vergleich zum Weissbüscheläffchen (*Callithrix jacchus*). Invited talk, *Verhaltensbiologisches Institut, Universität Münster, Germany.*
- Schradin, C. Paternal care in Goeldi's monkeys (*Callimico goeldii*). Invited talk, *School of Animal, Plant and Environmental Sciences, University of the Witwatersrand, South Africa.*
- Schradin, C. Paternal infant carrying in Goeldi's monkeys (*Callimico goeldii*): Why starts it so late? Talk, *Graduiertentreffen der Studiengruppe Evolutionsbiologie der DZG, Bielefeld, Germany.*
- Schradin, C. Hormone und Jungenaufzucht. Talk, *VHS-Zürich, Switzerland.*
- Schradin, C. Was Hormone sind und wie sie wirken. Talk, *VHS-Zürich, Switzerland.*
- Schradin, C. Wie Fisch sich einen Harem hält: Männliche Friedensstifter beim Schneckenbuntbarsch (*Neolamprologus multifasciatus*). Invited talk, *Institut für Verhaltensbiologie, Universität Zürich, Switzerland.*
- Schradin, C. & Anzenberger, G. Prolactin and paternal care in New World monkeys. Talk, *ASAB Easter Meeting, Chester College, UK.*

- Schradin, C., Reeder, D. M., Mendoza, S. P., Anzenberger, G. Prolactin and paternal care in New World monkeys. Talk, *XXVII International Ethological Conference, Tübingen, Germany*.
- 2000 Schradin, C. & Anzenberger, G. Paternal infant carrying in Goeldi's monkeys (*Callimico goeldii*): Why starts it so late? Talk, *17. Ethologentreffen, Utrecht, Netherlands*.
- Schradin, C. & Anzenberger, G. Costs of infant care in common marmosets (*Callithrix jacchus*): Reduction of the leaping distance due to infant carrying. Poster, *International Behavioral Ecology Congress, Zürich, Switzerland*.
- Schradin, C. & Anzenberger, G. Measurement of Prolactin in Urine. Talk, *European Marmoset Research Group, Paris, France*.
- Schradin, C. & Anzenberger, G. Paternal care in Goeldi's monkeys, *Callimico goeldii*. Invited talk, *University of California, Davis, Psychology Department, USA*.
- Schradin, C. & Anzenberger, G. Paternal care in Goeldi's monkeys, *Callimico goeldii*. Invited talk, *University of California, Davis, Primate Seminar, USA*.
- 1999 Schradin, C. Regulation väterlichen Verhaltens. Talk, *Workshop Gruppenmechanismen, Max-Planck-Institute for Behavioral Physiology Seewiesen, Germany*.
- Schradin, C. & Anzenberger, G. Paternal care in Goeldi's monkeys: its endocrinology and motivational development. Talk, *XXVI International Ethological Conference, Bangalore, India*.
- Schradin, C. & Anzenberger, G. Prolactin and paternal care in clawed New World monkeys. Talk, *Centenary Congress of the Anthropological Institute and Museum in Zürich 1899-1999, Switzerland*.
- Schradin, C. & Anzenberger, G. Measuring prolactin in the urine of common marmosets. Talk, *European Marmoset Research Group, Swiss Seminar 1999, Zürich, Switzerland*.
- 1998 Schradin, C. Prolaktin, das Elternhormon. Talk, *Workshop Gruppenmechanismen, Max-Planck-Institute for Behavioral Physiology Seewiesen, Germany*.
- Schradin, C. & Lamprecht, J. Sex-biased immigration in the shell-dwelling cichlid fish *Neolamprologus multifasciatus*. Poster, *16. Ethologentreffen, Halle, Germany*.