

Curriculum Vitae

NICOLE HAGENAH

Personal details

Date of birth 6 December 1973
Place of birth Osterholz-Scharmbeck, Germany
Nationality German
Postal address School of Biological and Conservation Sciences, University of KwaZulu-Natal, Private Bag X01, Pietermaritzburg, 3209, South Africa
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Education

2006 *PhD (Production Ecology and Resource Conservation) – Wageningen University and Research Centre, Wageningen, Netherlands*
Among rodents and rhinos: Interplay of small mammals with large herbivores in a South African savanna. ISBN 90-8504-467-7
Supervisors: Prof. Herbert H.T. Prins, Prof. Han Olff

2001 *MSc (Biology) – University of Hanover, Hanover, Germany*
Ecology and intrasexual competition of male Golden-Brown Mouse Lemurs (*Microcebus ravelobensis*) in northwestern Madagascar during the dry season
Supervisor: Prof. Elke Zimmermann

Professional Experience

2009 - present *Postdoctoral Research Fellow – University of KwaZulu-Natal, Pietermaritzburg, South Africa and Yale University, New Haven, CT, USA*
Savanna Convergence Project: The role of fire and herbivory in South African and North American grasslands
Advisors: Prof. Kevin Kirkman and Prof. Melinda D. Smith

- 2006 – 2008 *Postdoctoral Research Fellow – University of Pretoria, South Africa*
The role of African mole-rats (Bathyergidae) as ecosystem engineers
Advisor: Prof. Nigel Bennett
- 2000 - 2001 *Research Assistant - Dept. of Zoology, School of Veterinary Medicine Hanover, Germany*
Primary responsibilities: handling, morphometric measurements and care of mouse lemurs (*Microcebus murinus* and *Microcebus rufus*) in the laboratory.

Research Interests

My research is motivated by an interest in addressing ecological questions within the context of Conservation Biology. In my current research, I focus on the impacts of natural disturbances and global environmental changes on mesic savanna grassland ecosystems. I am particularly interested in the interactive effects of grazing, fire and global climate change (primarily through altered precipitation) on South African savanna grasslands and North American tallgrass prairie. Specifically, I would like to know how future changes of these key drivers will affect savanna grasslands globally.

Despite a heavy emphasis on savanna grasslands, my research interests incorporate a wide range of biomes. I've worked in deserts and fynbos (South Africa), dry deciduous forests (Madagascar), and tropical rainforests and mangroves (Costa Rica, Ecuador).

Publications

Hagenah, N., Prins, H.H.T., Olf, H. (2009). Effects of large herbivores on murid rodents in a South African savanna. *Journal of Tropical Ecology* 25: 483-492.

Hagenah, N., Munkert, H., Gerhardt, K., Olf, H. (2009). Interacting effects of grass height and herbivores on the establishment of an encroaching savanna shrub. *Plant Ecology* 201: 553-566.

Weidt, A., Hagenah, N., Randrianambinina, B., Radespiel, U., Zimmermann, E. (2004). Social Organisation of the Golden Brown Mouse Lemur (*Microcebus ravelobensis*). *American Journal of Physical Anthropology* 123: 40-51.

Manuscripts (submitted or in prep)

Hagenah, N., Chimimba, C.T., Bennett, N.C. Islands in the desert: How African mole-rat burrowing affects arid environments. (submitted)

Hagenah, N., Chimimba, C.T., Bennett, N.C. Impact of African mole-rats (*Bathyergidae*) on soil properties in a biodiversity hotspot. (in prep)

Hagenah, N., Chimimba, C.T., Bennett, N.C. Of mole-rats and Fynbos: Are subterranean rodents (*Bathyergidae*) key drivers of plant community dynamics in a biodiversity hotspot? (in prep)

Hagenah, N., Prins, H.H.T., Oloff, H. Habitat utilisation of rodents in a savanna mosaic. (in prep)

Hagenah, N., Prins, H.H.T., Oloff, H. How herbivore species with various body sizes respond to fire history. (in prep)

Conference Presentations

Hagenah, N. 2009. David vs. Goliath: Interactions of rodents and large herbivores in a South African Savanna. Paper presented at the Ecological Seminar of Yale University, Dept. of Ecology and Evolutionary Biology. 22 June 2009, New Haven, CT, USA.

Hagenah, N. 2008. Effects of African mole-rats (*Bathyergidae*) on their environment. Paper presented at the Ecological Seminar of the University of Groningen. 18 March 2007, Groningen, Netherlands.

Hagenah, N. 2007. Ecological consequences of disturbances of African mole-rats (*Bathyergidae*). Paper presented at the AGM of the University of Pretoria. 22-23 November 2007, Pretoria, South Africa.

Hagenah, N. 2007. Among Rodents and Rhinos: Interplay between small mammals and large herbivores in a South African Savanna. Paper presented at the Hluhluwe-iMfolozi Management Feedback Symposium. 5-8 March 2007, Hluhluwe-iMfolozi Park, South Africa.

Hagenah, N., Oloff, H., Prins, H.H.T. 2004. Savanna rodents and their interactions with larger herbivores through the vegetation. Poster presented at the 5th International Symposium of Physiology, Behaviour and Conservation of Wildlife. 26-29 September 2004, Berlin, Germany. Abstract published in *Advances in Ethology* 38: 131.

Hagenah, N., Oloff, H. (2003): Interplay of Small Mammals with Large Herbivores in South African Savannas: Functional Diversity in a Natural Production and Conservation System. Poster presented at the 2nd International Conference on Rodent Biology and Management. 10-14 February 2003, Canberra, Australia.

Hagenah, N. 2002. Impact of large herbivores on murid rodents in South African savannas. Poster presented at the KwaZulu-Natal Wildlife Research Symposium. August 2002, Pietermaritzburg, South Africa.

Hagenah, N. 2002. Impact of large herbivores on murid rodents in South African savannas. Poster presented at The Kruger Symposium - Ecology and Management of Savanna Heterogeneity. 16-18 April 2002, Kruger National Park, South Africa.

Weidt, A., Randrianambinina, B., Rakotondravony, D., **Hagenah, N.**, Zimmermann, E. (2001) Mating System of the Golden Brown Mouse Lemur (*Microcebus ravelobensis*). Poster presented at the XXVII. International Ethological Conference. August 2001, Tuebingen, Germany. Abstract published in Advances in Ethology 36, 287-288.

Hagenah, N., Randrianambinina, B., Weidt, A., Radespiel, U., Zimmermann, E. (2001) Spatio-Temporal Behaviour of the Golden Brown Mouse Lemur (*Microcebus ravelobensis*), Poster presented at the 94th Annual meeting of the German Zoological Society, Osnabrueck, Germany. Abstract published in Zoology 104 (Suppl. IV): 28.

Lectures

2009 Life on Earth BIOL 102 (1st year course), Biodiversity Crisis. University of KwaZulu-Natal (8 lectures and generated exam questions).

2008 Behavioural Ecology ZEN 363 (Honours course). Applying behavioural ecology to conservation. University of Pretoria (1 lecture).

2008 Large Mammal Ecology ZEN 710 (Honours course). Conservation Biology and Wildlife Management. University of Pretoria (2 lectures).

Advisory Positions (Masters)

Sindiso C. Chamane, (2009-present, University of KwaZulu-Natal, South Africa): Effect of fire on the distribution and behaviour of grazing herbivores.

Astrid Kramer (2004, Leiden University, The Netherlands): Impact of larger herbivores on small mammals in savannas. COMPLETED 2004

Marielle Beijen (2004, Leiden University, The Netherlands): How does heterogeneity in vegetation structure of savanna ecosystems affect the spatial habitat utilisation of small mammals? COMPLETED 2004

Competitive Grants and Awards

2009 - present Postdoctoral Research Fellowship of the Mellon Foundation, USA

2006 - 2008 Postdoctoral Research Fellowship of the University of Pretoria, South Africa

2001 - 2005 Doctoral Fellowship of the Robert Bosch Foundation, Germany

2000 – 2001 Scholarships of the German Research Foundation and VW Foundation, Germany

Society Memberships

2001-2006 German Zoological Society (DZG)
2001-2007 German Ethological Society (Ethologische Gesellschaft e.V.)
2005-2006 Association for the Study of Animal Behaviour (ASAB)
2009-present Society for Conservation Biology
2009-present Ecological Society of America
2009-present Zoological Society of Southern Africa (ZSSA)
2009-present Association for Tropical Biology and Conservation (ATBC)

Volunteer experience

2004-2005 Team Coordinator – WWF Groningen, Netherlands
Guided and coached volunteer-team, contact person for Dutch WWF main office, representation of WWF in the public, advertising of donators and new volunteers and assistance in nature conservation events of WWF.

1996 'Estación Biológica Jatun Sacha', Misahuallí, Ecuador, Society of International and Intercultural Exchange (Via e.V.), Germany
Assisted in setting-up a botanical garden, seed collection in the Amazon forest and improving infrastructure for local community.

Additional Skills and Languages

2000 License for animal distance narcosis (including certificate for distance narcosis fire arms), School of Veterinary Medicine Hannover, Germany

1998 License to perform experiments on animals, School of Veterinary Medicine Hannover

Languages: German (native speaker); English (fluent); Dutch (fluent); French (working knowledge). Able to teach in German, English or Dutch.