

# David Jansen

RESEARCH SCIENTIST

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## Education

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### University of Zurich

Zurich, Switzerland

#### PHD ANIMAL BEHAVIOUR AND COMMUNICATION

2009 - 2014

- Advisor: Dr. Marta Manser
- Thesis: Vocal Communication in Banded Mongoose (Mungo mungos)

### Wageningen University

Wageningen, The Netherlands

#### MSC FOREST AND NATURE CONSERVATION - ECOLOGY

cum laude | 2003 - 2005

- Speciality: Ecology and Management
- Thesis: Diet selection of goats: - a feeding trial experiment.
  - fieldwork was done at KwaZulu-Natal University (Pietermaritzburg, South Africa)
  - Advisors: Frank van Langevelde and Fred de Boer
- Internship: Self-organising spatial patterns in mussel beds.
  - Royal Netherlands Institute for Sea Research - Spatial Ecology
  - Advisors: Frank van Langevelde and Johan van de Koppel

### University of Aberdeen

Aberdeen, Scotland

#### SOCRATES/ERASMUS EXCHANGE PROGRAM - ECOLOGY

2004

- Funded exchange program

### Wageningen University

Wageningen, The Netherlands

#### BSc FOREST AND NATURE CONSERVATION

2000 - 2003

- Speciality: Ecology and Management
- Thesis: The contribution of floodplains to the ecology of large herbivores.
- Advisor: Ignas Hetkonig

## Experience

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### University of Notre Dame

Notre Dame, USA

#### RESEARCH SCIENTIST

2015 - present

- Conducted independent research using advanced statistical analysis, modeling, data visualization, and database querying.
- Contributed to data and statistical analysis for 7 papers
- Assisted in management of large relational database
- Assisting the PI with analysis and visualizations for grant applications
- Used R and PostgreSQL for the automation of data quality control and reports
- Consult lab members in data science skills

### University of Notre Dame

Notre Dame, USA

#### LAB MANAGER

2014 - present

- Train and supervise 20+ undergraduate students in parasitology
- Managed the organization of sequence data of a 26000 sample project. This included the creation of a database structure, setting of secure data storage, writing protocols, and training of graduate students and post-doc researchers. Managed the organization of sequence data of a 26000 sample project. This included the creation of a database structure, setting of secure data storage, writing protocols, and training of graduate students and post-doc researchers.
- Writing of protocols for lab safety, sample storage, and data organization
- Database management
- Maintain lab organization

## University of Zurich

### PHD STUDENT

Zurich, Switzerland

2009 - 2013

- Behavioral observations and experiments on a wild population of Banded mongoose
- Acoustical recordings and analysis
- Consulted lab members in statistical analysis

## Kalahari meerkat project

VanZylsrus, South Africa

### FIELD ASSISTANT

2006 - 2009

- Behavioural observations and habitation of 3 mongooses species
- Data entry and database management
- Optimized the data quality control using Microsoft Access and writing protocols for future data managers
- Animal captures

## Nova Atlantis

Pico, Azores, Portugal

### FIELD ASSISTANT

2006

- Behavioural observations of multiple cetaceans species
- Data entry and database management

## Field assistant

Abu Dhabi, UAE

### BASS UNIVERSITY

2006

- Behavioural observations Kentish plover (*Charadrius alexandrinus*)
- Captures of both adults and chicks; body measurements, ringing and blood draw

## Publications

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**Jansen, D.**, Langevelde, F., Boer, W. F. 2007. Optimization or satiation, testing diet selection rules in goats. *Small Ruminant Research* 73.1, pp. 160–168

**Jansen, D.**, Cant, M. A., Manser, M. B. 2012. Segmental concatenation of individual signatures and context cues in banded mongoose (*Mungos mungo*) close calls. *BMC biology* 10.1, pp. 1–11.

**Jansen, D.**, Cant, M. A., Manser, M. B. 2013. Testing for vocal individual discrimination in adult banded mongooses. *Journal of Zoology* 291.3, pp. 171–177.

**Jansen, D.** 2013 Vocal communication in banded mongoose. PhD thesis. Doctoral dissertation, University of Zürich.

Manser, M. B., **Jansen, D.**, Graw, B., Hollén, L. I., Bousquet, C. A., Furrer, R. D., Roux, A., 2014. Vocal complexity in meerkats and other mongoose species". *Advances in the Study of Behavior*. Vol. 46. pp. 281–310.

Townsend, S. W., Koski, S. E., Byrne, R. W., Slocombe, K. E., Bickel, B., Boeckle, M., Braga Goncalves, I., Burkart, J. M., Flower, T., Gaunet, F., Glock, H., Gruber, T., **Jansen, D.**, Liebal, K., Linke, A., Miklósi, A., Moore, R., Schaik, C., Stoll, S., Vail, A., Waller, B., Wild, M., Zuberbühler, K., Manser, M. B., 2017. Exorcising G. rice's ghost: an empirical approach to studying intentional communication in animals. *Biological Reviews* 92.3, pp. 1427–1433.

Akinyi, M. Y., **Jansen, D.**, Habig, B., Gesquiere, L. R., Alberts, S. C., Archie, E. A. 2019. Costs and drivers of helminth parasite infection in wild female baboons". *Journal of Animal Ecology* 88, pp. 1029–1043.

Habig, B., **Jansen, D.**, Akinyi, M. Y., Gesquiere, L. R., Alberts, S. C., Archie, E. A., 2019. Multi-scale predictors of parasite risk in wild male savanna baboons (*Papio cynocephalus*)". *Behavioral Ecology and Sociobiology* 73.10, pp. 1–16.

Levy, E. J., Zippel, M. N., McLean, E., Campos, F. A., Dasari, M., Fogel, A. S., Franz, M., Gesquiere, L. R., Gordon, J. B., Grieneisen, L., Habig, B., **Jansen, D.**, Learn, C., Altmann, S., Archiel, E., 2020. A comparison of dominance rank metrics reveals multiple competitive landscapes in an animal society. *Proceedings of the Royal Society B* 287.1934, p. 20201013.

Grieneisen, L., Dasari, M., Gould, T. J., Björk, J. R., Grenier, J. C., Yotova, V., **Jansen, D.**, Gottel, N., Gordon, J. B., Learn, N. H., 2021. Gut microbiome heritability is nearly universal but environmentally contingent". *Science* 373.6551, pp. 181–186.

Björk, J. R., Dasari, M. R., Roche, K., Grieneisen, L., Gould, T. J., Grenier, J. C., Yotova, V., Gottel, N., **Jansen, D.**, Gesquiere, L. R., 2022. Synchrony and idiosyncrasy in the gut microbiome of wild baboons. *Nature Ecology & Evolution*, pp. 1–10.

Paietta, E. N., Weibel, C. J., **Jansen, D.**, Mututua, R. S., Warutere, J. K., Siodi, I. L., Gesquiere, L. R., Obanda, V., Alberts, S. C., Archie, E. A. 2022. Troubled waters: Water availability drives human-baboon encounters in a protected, semi-arid landscape. *Biological Conservation* 274, p. 109740.

- Gordon, J.\*, **Jansen, D.**,\*, Learn, N., Archie, E., Tung, J., Altmann, J., Alberts, S.C. 2022. Ordinal dominance rank assignments: Matrix-based versus Elo-based. Technical report; Duke university. (\* shared first authorship)
- Björk J.R., Dasari M., Grieneisen L., **Jansen D.**, Gould T.J., Gesquiere L.R., Barreiro L.B., Alberts S.C., Blekhman R., Gilbert J.A., Tung J., Mukherjee, S., Archie E.A. 2023. Universal gut microbial relationships in the gut microbiome of wild baboons. *eLife*. 12:e83152
- Jansen, D.**, Alberts, S. C., Archie, E. A., (in prep). Grooming interactions with fathers increase adult female survival

## Presentations/Posters

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- Jansen, D.**, Archie, E.A.2022. Can we replace assigned ranks by elo-based ranks?, Joint lab meeting, Duke, USA
- Jansen, D.**, Archie, E.A. 2020. Do baboon dads matter?, Joint lab meeting, Duke, USA
- Jansen, D.**, Archie, E.A. 2019. Issues with SCI and DSI and the possible solution of universal slopes. Joint lab meeting, Duke, USA
- Jansen, D.**, Archie, E.A. 2018. Early adversity, social connectedness, and submission indexes for juveniles. Joint lab meeting, Duke, USA
- Jansen, D.**, Archie, E.A. 2015. Condition data analysis. Joint lab meeting, Duke, USA
- Jansen. D.** Cant, M.A., Manser, M.B. 2013. Context-specific call sequences in the banded mongoose. (poster) ABS conference. Boulder, USA
- Jansen. D.**, Cant, M.A., Manser, M.B. 2012. Temporal segregation of individual and behavioural signatures in banded mongoose (*Mungos mungo*) close calls. VIth ECBB. Essen, Germany
- Jansen. D.** 2012. Complexity of information coding in banded mongoose vocalisations. EvoBio PhD retreat. Riederalp, Switzerland **Jansen. D.** Cant, M.B., Manser, M.B. 2012. Close call transmission - a comparison between banded mongoose and meerkats. 4th annual Meerkat and Mongoose Meeting. Cambridge, UK
- Jansen. D.** Cant, M.B., Manser, M.B. 2012. Temporal segregation of individual and behavioural signatures in banded mongoose close calls. . ASAB Easter meeting. Aberystwyth, UK
- Jansen. D.** Cant, M.B., Manser, M.B.2012. Banded mongoose close calls encode individual- and behaviour-specific signatures. Biology 2012. Friborg, Switzerland
- Jansen. D.** Cant, M.B., Manser, M.B. 2011. Banded mongoose close calls encode individual- and behaviour-specific signatures. . XXIII IBAC. La Rochelle, France
- Jansen. D.**. 2011. Cooperation. Conflict and Communication in Banded Mongoose. Tropical Biology Association course. Mweya, Uganda
- Jansen. D.** . 2010. Cooperation. Conflict and Communication in Banded Mongoose. Tropical Biology Association course. Mweya, Uganda
- Jansen. D.**. 2009. Vocalizations of banded mongoose. UWA research symposium. Mweya, Uganda
- Jansen. D.**. 2009. Banded mongoose research in Queen Elisabeth National Park. Tropical Biology Association course. Mweya, Uganda
- Jansen. D.**. 2008. 'Dinner time'. - resource calls in banded mongoose. . Institute of Zoology PhD retreat. Zurich, Switzerland

## Workshops & courses

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- 2022 **Geospatial R Workshop**, University of Notre Dame, USA
- 2022 **Using a Concordance**, University of Notre Dame, USA
- 2017 **Microbial ecology reproducible research workshop**, University of Michigan, USA
- 2017 **Effective Scientific Writing Workshop**, University of Notre Dame, USA
- 2016 **Geographic Information Systems**, University of Notre Dame, USA
- 2016 **Bayesian Statistics for Ecologists and Epidemiologists**, University of Notre Dame, USA
- 2015 **Topics in Infectious Disease: Population Biology of Infectious Disease**, University of Notre Dame, USA
- 2015 **Introduction into bioinformatics**, University of Notre Dame, USA
- 2012 **Unpacking intentional communication in animals: an integrative approach**, University of Zurich, Switzerland
- 2011 **Vocal Communication and Social Cognition**, University of Zurich, Switzerland
- 2011 **Programming in R**, University of Zurich, Switzerland
- 2011 **Write up scientific research**, University of Zurich, Switzerland
- 2011 **Good graphics using R**, University of Zurich, Switzerland
- 2010 **Foundations of Modelling and Scientific Computing**, University of Zurich, Switzerland
- 2010 **Avoiding Tragedies of the Commons**, University of Neuchatel, Switzerland
- 2010 **Research Ethics**, University of Zurich, Switzerland
- 2010 **An Introduction to Data Analysis for Ecologist using R**, University of Zurich, Switzerland
- 2009 **Research symposium Experiential tourism**, Uganda Wildlife Authority, Uganda
- 2008 **Generalized Linear Models in R**, University of Zurich, Switzerland
- 2003 **Savanna Ecology field course in Kenya**, Tropical Biology Association | University of Cambridge, UK

## Skills

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### Programming

R  
Tidyverse  
PostgreSQL  
Unix  
git  
high-performance computing

### Statistics

linear (mixed) effect models  
survival analysis  
ordinations  
non parametric  
power analysis

### Acoustics

Avisoft  
Field recordings  
Playback experiments

### Office skills

Microsoft Office  
Google suites  
Rmarkdown  
Latex

### Languages

Dutch (native)  
English (fluent)  
German (basic)

## References

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Prof. Dr. Elizabeth Archie  
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(Director ABRP project and collaborator)

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(former graduate student from lab and collaborator)

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(post-doc during my PhD)