

# 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)