

Dr Jeroen Minderman

<https://jejoenje.github.io/about/>

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I am a research scientist with over 11 years of experience working in the academic and commercial sectors. My entire career has been characterised by a strong quantitative and analytical element, with recent roles primarily focused on conservation science and ecology. I use statistical- and simulation modelling to analyse (often large) empirical datasets, and have built up extensive experience managing and formatting data for analysis, using tools including R, Python, C/C++, and SQL. Many of my previous roles focused on delivery of both peer-reviewed papers as well as reports to an excellent technical standard, as well as on actively pursuing stakeholder collaboration.

I am particularly interested in opportunities to apply my technical data science and analysis skills to practical, real-world problems. This can be anything, from data management and organisation to complex statistical analysis and simulation models. But I am especially passionate about work related to socio-ecological sustainability, and how creative ways of using data, as well as promoting data literacy, can support sustainability.

Key skills

Technical

- Excellent theoretical and practical expertise in a range of **cutting-edge statistical modelling techniques**, including e.g. mixed effects modelling, Bayesian analyses, machine learning approaches; with a particular focus on predictive analytics.
- Very broad and **extensive experience using a range of modern analytical platforms, specifically R, but also including Python**. Working knowledge of a range of programming languages including C, C++ and JavaScript. **Active Git/Github user for version control and collaboration**. Able to quickly learn to use new languages/platforms.
- **Ability to effectively handle large datasets, and prepare these for analysis**, both using custom processing scripts, as well as the use of e.g. SQL and database interfaces to e.g. R.
- Very **proficient in the presentation and communication of analysis outcomes to stakeholders** and non-specialists, particularly via the **use of interactive apps and dashboards**, e.g. R Shiny.
- Extensive experience **writing and presenting technical publications**, including scientific peer-reviewed papers, book chapters, and stakeholder reports. This has included work that was externally funded both on a personal basis as well as via tenders won.

Management & project delivery

- **Extensive experience planning, running and delivering both short- and long-term projects**, primarily academic research work but also including tendered contracts for a range of clients/partners. Excellent time management skills.
- Broad **experience of working directly with a diverse range of stakeholders**, and a genuine passion for nurturing interactive ways of working between technical specialists (scientists) and stakeholders/clients.
- Practical **experience of both managing and working in teams of people** focused on delivering defined pieces of work, including PhD and MSc student supervision.

Training, teaching & leadership

- **Extensive experience of and keen interest in training and teaching**, particularly of quantitative methods, analysis techniques and programming.
- **Experience leading small teams** in the form of research students and technical assistants, and have provided assistance in leading bigger teams.

- 2018-current: **Research Fellow, University of Stirling**
Modeller in the ConFooBio project (€1.5 million), focusing on the development and application of simulation models for socio-ecological systems. Work includes extensive stakeholder engagement as well as delivery of specific reports (e.g. for Nature.Scot).
- 2015-2017: **Leverhulme Research Fellow, University of St Andrews**
Personal external research grant; responsible for planning, day-to-day running and delivery of research on effects of environmental change.
- 2012-2015: **University Impact Research Fellow, University of Stirling**
Personal research grant; project focusing on predicting effects of wind turbines on wildlife. Work involved a tendered contract work for Scottish Government. Responsible for day-to-day running of project and delivery.
- 2012: **Ecological Modeller, Natural Power Consultants, Falkirk**
Responsible for the delivery of quantitative elements of client reports, focusing on predictive analytics in Environmental Impact Assessments.
- 2011-2012: **Postdoctoral Research Associate, Newcastle University**
Lead on project aimed at delivering a decision support tool for international species conservation, funded by DEFRA; extensive stakeholder liaison.
- 2009-2011: **Postdoctoral Research Assistant, University of Stirling**
Responsible for day-to-day running of research project, including data collection, analysis and publication delivery.

Education

- 2005-2009: PhD in animal ecology, Newcastle University
1999-2005: Combined BSc. and MSc. degree in Biology & Ecology,
University of Groningen, The Netherlands

Selected publications (full list [here](#))

- Bunnefeld, N., Pozo, R.A., Cusack, J.J., Duthie, A.B. & **Minderman, J.** (2020). *Development of a population model tool to predict shooting levels of Greenland barnacle geese on Islay*. Scottish Natural Heritage Research Report No. 1039. See also: <https://jejoenje.shinyapps.io/GooseGMSE/>
- Duthie AB, Cusack JJ, Jones IL, **Minderman J**, Nilsen EB, Pozo RA, Rakotonarivo OS, Van Moorter B, Bunnefeld N (2018). GMSE: An R package for generalised management strategy evaluation. *Methods in Ecology and Evolution* 9:2396–2401. DOI 10.1111/2041-210X.13091.
- **Minderman J.** & Park K.J. (2015). *Desk-based review of the methods used to assess the effects of wind farms on different bird species*. SWBSG Commissioned report number 1402. 38pp. Available from: www.swbsg.org

Additional skills and selected qualifications

- Clean UK driving licence.
- Languages: English (fluent), Dutch (native), German (proficient).
- “First Aid at Work” certified (British Red Cross training, April 2019-April 2022)
- Secretary of the Tay Ringing Group, a Scottish registered charity aimed at promoting bird conservation in eastern Scotland through bird ringing (2017-).
- In my spare time, I enjoy baking bread, car DIY, micro-electronics, generally making things, running and birdwatching. I volunteer in a number of bird conservation schemes, and have a somewhat inexplicable interest in classic Japanese cars and bikes.