

‘How to...’ paper Guidelines

‘How to...’ articles are instructional papers that aim to serve as a practical guide for animal ecologists in applying a specific method (e.g. analysis, experimental system or modelling approach) to their research. The aim is not to provide a comprehensive review of the uses of specific models or techniques, nor to review the empirical results of their application to ecological data sets.

Important sections and areas to cover

Introduction

As with all articles, the introduction should provide ecological context, and in this case setting out the ecological questions and problems that have motivated the use of this method.

Explanation of the method

A very brief historical background. Why is the method useful for investigating or analysing the topic in question? Provide some details on the method’s applications.

Things to consider for before using this method

Outline the requirements for framing hypotheses, data and computing, experimental constraints and statistical power.

Worked examples

Papers should include at least two tutorials, with a step-by step demonstration of the method. Figures and mathematical formulations are particularly useful here. Where possible, tutorials and examples should include those using the *R* statistical package or other freeware.

Tools

Describe the available tools (e.g. software) and where they can be obtained. It can be helpful to provide a table giving an overview.

Try-it yourself

You should provide some sample data in the supporting information for readers to try the method for themselves.

Other possibilities and developments

How else may this method be utilised and developed?

Caveats and pitfalls

Limitations and common examples of misuse or misunderstanding of the method, and how to deal with or avoid these in ones' research.

Additional practical resources

It is helpful to include a section at the end providing links to relevant tutorials, notes, etc.

Example 'How to...' papers

Farine, D. R. and Whitehead, H. (2015), Constructing, conducting and interpreting animal social network analysis. *J Anim Ecol*, 84: 1144–1163. [doi:10.1111/1365-2656.12418](https://doi.org/10.1111/1365-2656.12418)

Puth, M.-T., Neuhäuser, M. and Ruxton, G. D. (2015), On the variety of methods for calculating confidence intervals by bootstrapping. *J Anim Ecol*, 84: 892–897. [doi:10.1111/1365-2656.12382](https://doi.org/10.1111/1365-2656.12382)

Rees, M., Childs, D. Z. and Ellner, S. P. (2014), Building integral projection models: a user's guide. *J Anim Ecol*, 83: 528–545. [doi:10.1111/1365-2656.12178](https://doi.org/10.1111/1365-2656.12178)

Dingemanse, N. J. and Dochtermann, N. A. (2013), Quantifying individual variation in behaviour: mixed-effect modelling approaches. *J Anim Ecol*, 82: 39–54. [doi:10.1111/1365-2656.12013](https://doi.org/10.1111/1365-2656.12013)

Wilson, A. J., Réale, D., Clements, M. N., Morrissey, M. M., Postma, E., Walling, C. A., Kruuk, L. E. B. and Nussey, D. H. (2010), An ecologist's guide to the animal model. *Journal of Animal Ecology*, 79: 13–26. [doi:10.1111/j.1365-2656.2009.01639.x](https://doi.org/10.1111/j.1365-2656.2009.01639.x)

Guidance for reviewers

The 'How to...' paper should provide an in-depth explanation of the methods or techniques covered and include a comprehensive set of 'How to' tutorials to facilitate implementation of the method by other ecologists. 'How to...' papers should act as an educational tool so should be written in an accessible style, suitable for a non-specialist graduate-level audience. The format of 'How to...' papers is flexible to reflect the diversity of different methods and approaches we wish to encourage, but all 'How to...' papers should include a numbered summary, an introduction, an explanation of the method presented including a description of how the method works, at least two tutorials including tools, data to allow the reader to try the technique themselves and discussion address as many of the questions outlined above as is feasible. The method/ techniques presented need not be entirely new or novel and papers of this nature may be more suitable for sister journal [Methods in Ecology and Evolution](#).