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DESCRIPTION

First published in 1953, Animal Behaviour is a leading international publication and has wide appeal, containing critical reviews, original papers, and research articles on all aspects of animal behaviour. Book Reviews and Books Received sections are also included.

Growing interest in behavioural biology and the international reputation of Animal Behaviour prompted an expansion to monthly publication in 1989. Animal Behaviour continues to be the journal of choice for biologists, ethologists, psychologists, physiologists, and veterinarians with an interest in the subject.

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- Behavioural ecology
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- Sociobiology
- Ethology
- Behavioural psychology
- Behavioural physiology
- Population biology
- Sensory behaviour
- Navigation and migration

AUDIENCE

Behaviourists, behavioural ecologists, behavioural neuroscientists, ethologists, evolutionary ecologists

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ABSTRACTING AND INDEXING

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INTRODUCTION
Types of article
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More general correspondence on matters relating to behavioural research is published, unrefereed, in the newsletters of ASAB and ABS. Such correspondence should be sent to the newsletter editors: Dr K. Graham, Department of Psychology, University of York, York YO10 5DD, U.K. (e-mail: asabnewslettereditor@gmail.com) for ASAB; D. J. Whittaker, BECON Center for the Study of Evolution in Action, Michigan State University, East Lansing, MI 48824, U.S.A. (e-mail: publicaffairs@animalbehaviorsociety.org) for ABS.

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Animal Welfare
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State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

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Where ethical considerations arise from the study, these should be addressed in the Methods, either in the main Methods section itself (where the additional discussion is relatively minor), or in a separate subsection of the Methods headed Ethical note. This information (i.e. an Ethical Note or a summary of details given in the text) should also be uploaded separately as an 'Animal welfare note' (see Animal welfare). Any welfare or environmental implications of the experimental design and procedures should be identified, and any licences acquired to carry out the work specified. Procedures that were taken to minimize the welfare impact on subjects, including choice of sample sizes, use of pilot tests and predetermined rules for intervention, should be described. Any steps taken to enhance the welfare of subjects (e.g. through 'environmental enrichment') should also be indicated. If the study involved keeping wild animals in captivity, state for how long the animals were captive and whether, where and how they were returned to the wild at the end of the study.

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Results should be clear and concise. This section should include only results that are relevant to the hypotheses outlined in the Introduction and considered in the Discussion. The text should complement material given in Tables or Figures but should not directly repeat it. Give full details of statistical analysis either in the text or in Tables or Figure legends. Include the type of test, the precise data to which it was applied, the value of the relevant statistic, the sample size and/or degrees of freedom, and the probability level. Number Tables and Figures in the order to which they are referred in the text. Means and standard errors/standard deviations (and medians and interquartile ranges/confidence limits), with their associated sample sizes, are given in the format $X \pm \text{SE} = 10.20 \pm 1.01\, \text{g}$, $N = 15$, not $X = 10.20, \text{SE} = 1.01, N = 15$.

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If the test statistic is conventionally quoted with degrees of freedom, these are presented as a subscript to the test statistic. For example:

- **ANOVA**: $F_{1,11} = 7.89, P = 0.017$
- **Kruskal-Wallis test**: $H_{11} = 287.8, P = 0.001$
- **Chi-square test**: $X^2 = 0.19, P = 0.91$
- **Paired $t$ test**: $t_{12} = 1.99, P = 0.07$

If the test is conventionally quoted with the sample size, this should follow the test statistic value. For example:

- **Spearman rank correlation**: $r_s = 0.80, N = 11, P < 0.01$
- **Wilcoxon signed-ranks test**: $T = 6, N = 14, P < 0.01$
- **Mann-Whitney $U$ test**: $U = 74, N_1 = N_2 = 17, P < 0.02$

$P$ values for significant outcomes can be quoted as below a threshold significance value (e.g. $P < 0.05, 0.01, 0.001$), but wherever possible should be quoted as an exact probability value. Departure from a significance threshold of 0.05 should be stated and justified in the Methods. Marginally nonsignificant outcomes can be indicated as exact probability values or as $P < 0.1$. Nonsignificant outcomes should be indicated with an exact probability value whenever possible, or as NS or $P > 0.05$, as appropriate for the test.

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Do not quote decimals with naked points, for example quote 0.01, not .01, or normally to more than three decimal places (the exception being $P$ values for significance tests, which may be quoted to four decimal places where appropriate, e.g. 0.0001).
Regressions and analyses of variance. The significance of regressions should be tested with $F$ or $t$ but not the correlation coefficient $r$. $R^2$ should be quoted with both regressions and parametric analyses of variance.

Multiple range tests. Unplanned multiple range tests following ANOVA should be avoided unless their appropriateness for the comparisons in question is verified explicitly. Authors are referred to the review by Day and Quinn (1989, Ecological Monographs, 59, 433-463).

Power tests. Where a significance test based on a small sample size yields a nonsignificant result, explicit consideration should be given to the power of the data for accepting the null hypothesis. Authors are referred to Thomas and Juanes (1996, Animal Behaviour, 52, 856-859) and Colegrave and Ruxton (2003, Behavioral Ecology, 14, 446-447) for guidance on the appropriate use of power tests. Providing a value for power based on a priori tests is preferred. Values of observed power are not appropriate. Authors should consider effect sizes and their confidence intervals in drawing conclusions regarding the null hypothesis.

Transformations. Where data have been transformed for parametric significance tests, the nature of the transformation and the reason for its selection (e.g. log $x$, $x^2$, arcsine) should be stated.

Discussion
It is often helpful to begin the Discussion with a summary of the main results. The main purpose of the Discussion, however, is to comment on the significance of the results and set them in the context of previous work. The Discussion should be concise and not excessively speculative, and references should be kept to a minimum by citing review articles as much as possible.

Conclusions
The main conclusions of the study may be presented in a short Conclusions section, as a subsection of a Discussion or Results and Discussion section.

Appendices
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