

**UNIVERSITY OF CUMBRIA**

**REASSESSMENT REQUIREMENT**

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| **Module Code: HSOZ6002** |
| **Module Title: Behavioural Ecology** |
| **Tutor: Mary Farrell** |
| **Title of the item of work: Paper critique** |
| **Wordage: 1500 words** |
| **Details and Criteria: ( Please attach additional sheets if necessary)**  **Rationale:**  ***“It usually comes as a surprise to students to learn that some (the purists would say up to 99% of) published articles belong in the bin and should certainly not be used to inform practice”.***  Trisha Greenhalgh, How to Read a Paper: The Basics of Evidence-Based Medicine    Given the above quote, you can see that the ability to critically evaluate journal articles is an essential skill for any scientist. A journal critique assignment is a piece of writing in which you assess the effectiveness of a journal article in achieving its stated aims and evaluate its value as a reliable resource. It is important to remember that a critique is not just about finding things wrong with a paper. It is about evaluating it as a piece of research: which means coming to a judgment about and assessing something's worth. An effective journal critique is about examining the paper to see if the claims it makes appear to be valid and if the conclusions make a useful contribution to the field.      **Brief:**  You have a choice of three short scientific papers on different aspects of behavioural ecology. You are required to select **ONE** of the three papers and critically analyse and evaluate it. Your answer should be informed and supported with references to the published research literature (including in-text citations and a reference list in Harvard format).    Brent, L. J., Franks, D. W., Foster, E. A., Balcomb, K. C., Cant, M. A. and Croft, D. P. (2015) [Ecological knowledge, leadership, and the evolution of menopause in killer whales](https://onesearch.cumbria.ac.uk/permalink/44UOC_INST/1q8quuo/cdi_proquest_miscellaneous_1664776042). *Current Biology*, 25, pp. 746-750.  Ferretti, A., Rattenborg, N. C., Ruf, T., McWilliams, S. R., Cardinale, M. and Fusani, L. (2019) [Sleeping unsafely tucked in to conserve energy in a nocturnal migratory songbird](https://onesearch.cumbria.ac.uk/permalink/44UOC_INST/1q8quuo/cdi_crossref_primary_10_1016_j_cub_2019_07_028). *Current Biology*, 29, pp. 2766-2772  Kelehear, C. and Shine, R. (2019) [Non-reproductive male cane toads (*Rhinella marina*) withhold sex-identifying information from their rivals.](https://onesearch.cumbria.ac.uk/permalink/44UOC_INST/1q8quuo/cdi_pubmedcentral_primary_oai_pubmedcentral_nih_gov_6731473)  *Biology Letters*, 15, e20190462.    **You need to consider the questions below when undertaking your paper critique:**     1. Was the study/research problem clearly identified? 2. What contribution does the study make to behavioural ecology? 3. What aspect of behavioural ecology does it address, and which hypothesis/hypotheses does it test? 4. Was the data collection method and analysis suitable? 5. Was the research question answered? 6. In what ways does the behaviour examined affect the individual fitness (or inclusive fitness if applicable) of the study animals? 7. What are the merits of the study and the strengths of the approach taken? 8. Could the study be improved? 9. Are there alternative explanations for the results found? 10. What further questions does the study raise and how could these be addressed?     **Format:**  You will need to structure your report to the format of a paper critique. You will need to include the following sections: Introduction (e.g., are the authors knowledgeable in the field and what is the impact of the paper (e.g., has it been cited by other authors); Article Summary (e.g., the overall purpose of the study and the research problem(s) investigated; the basic design of the study; major findings or trends found as a result of the analysis; and a brief summary of their interpretations and conclusions.); Analysis and Evaluation (e.g., should include sub-headings - please use the questions listed above to help you with this section) and Conclusion (e.g. is the research design appropriate; any omissions or errors in the paper that might affect the reliability of the research; are the results original and significant; how unbiased is the research; does the author provide new ideas or cause new questions to be asked). The word count includes everything in the main body of the text from the Introduction to the Conclusion.      **References:**  A reference list of all sources of information must be provided. References used in the assessment must be referenced according to the Harvard System. Please see the guide on referencing for assistance <https://my.cumbria.ac.uk/Student-Life/Learning/Skills-Cumbria/Referencing-and-Avoiding-Plagiarism/>      **Learning Outcomes:**  The following module learning outcomes are being assessed within this assessment:     |  | | --- | | 1. Critically assess how selection pressures on animals influence the evolution of behaviour | | 1. Critically evaluate different behavioural strategies and how they affect individual fitness | | 1. Critically assess the costs and benefits of a range of specific behaviours |     **Marking Criteria and Distribution:**  This assessment will be marked anonymously. It is **ESSENTIAL** to refer to the marking rubric **BELOW** to help you with this work. It will be marked against this. You may wish to familiarise yourself with the generic grade descriptors for L6 which give you a greater understanding of the benchmarks required for the second year of your degree – [these can be found here within the academic regulations](https://www.cumbria.ac.uk/about/organisation/professional-services/academic-quality-and-development/academic-regulations/)   |  |  | | --- | --- | | Introduction | 05% | | Article Summary | 05% | | Conclusion | 10% | | Analysis and Evaluation | 60% | | Writing quality and references | 20% | |
| **SUBMISSION DATE AS PER STUDENT PORTAL**  *(please tick as appropriate but must be completed)*  X  To be submitted by 4***:00 PM*** on ***05/05/2023*** in accordance with instructions given by the course team.  To be submitted through the Virtual Learning Environment (eg. Blackboard / Pebblepad etc.) in pdf format, or in person/by RECORDED DELIVERY to the Programme Administration at the **Fusehill Campus** of the University of Cumbria.  X |