

Update on the Cetacean Welfare Assessment Tool

1. Background

- 1.1 In 2016, the UK chaired a workshop in Kruger National Park, South Africa, which brought experts together to consider current knowledge of welfare aspects of non-hunting threats to cetaceans. The workshop produced a number of recommendations which were subsequently endorsed at IWC66.
- 1.2 Following endorsement of these recommendations at IWC66, we developed a Welfare Assessment Tool for Wild Cetaceans (WATWC) in conjunction with experts in risk assessment to assess and evaluate the welfare impacts of non-hunting threats to cetaceans.
- 1.3 A draft of the tool was presented at the Scientific Committee in April 2018 to ensure the framework and the assessment process were robust and the tool could be as useful as possible.
- 1.4 Following some refinement using feedback from the Scientific Committee, the draft WATWC was presented at IWC67 to the WKMWI working group which endorsed the continuation of the work and recommended a presentation of the final version to IWC68.

2. Progress on the Cetacean Welfare Assessment Tool

- 2.1 The tool continued to be developed and is based on a process of expert elicitation using an adaptation of the Five Domains Model (FDM), listing cetacean-relevant factors in each of the domains: (1) nutrition, (2) environment, (3) health, (4) behaviour and (5) mental state (figure 1). The FDM is widely used and is accepted as a useful framework for undertaking systematic and structured assessments of animal welfare.

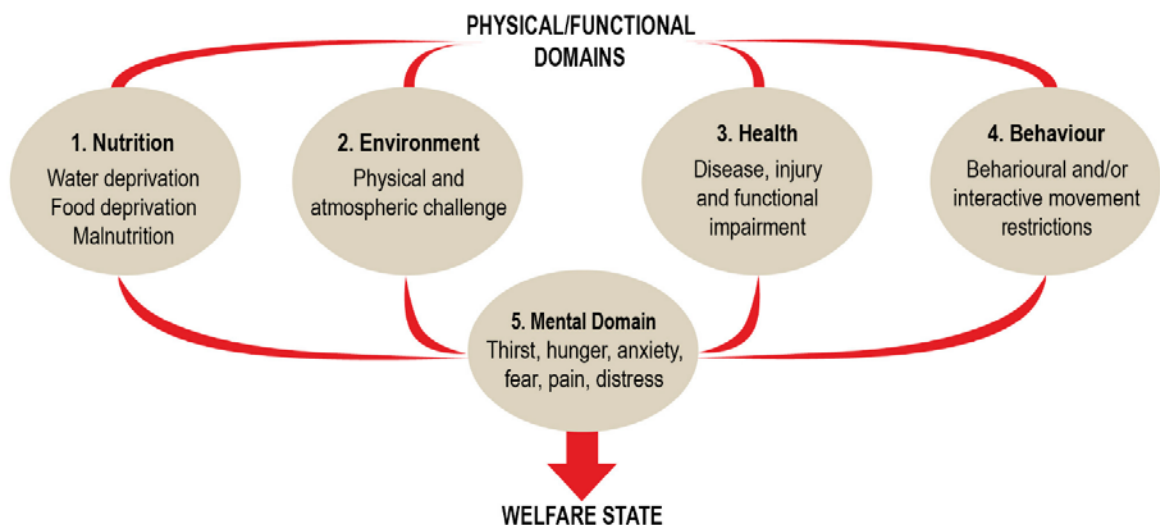


Figure 1. The Five Domains model from Mellor, D.J.; Beausoleil, N.J.; Littlewood, K.E.; McLean, A.N.; McGreevy, P.D.; Jones, B.; Wilkins, C. The 2020 Five Domains Model: Including Human–Animal Interactions in Assessments of Animal Welfare. *Animals* **2020**, *10*, 1870. <https://doi.org/10.3390/ani10101870>

- 2.2 The tool was refined following various rounds of feedback to improve functionality and its proof of concept was tested using the South Resident killer whale case study, as recommended by the whale-watching subcommittee of the Scientific Committee.
- 2.3 The case study used two scenarios of differing exposure to vessel traffic and the subsequent difference in behavioural responses. Nine experts assessed the scenarios and scored using the cetacean-specific FDM. This case study and the method used were published in a peer-reviewed journal, *Frontiers in Veterinary Science*, in 2020, see agenda item 5.2.1.
- 2.4 The results presented in the paper showed close agreement between assessors of overall welfare impact and showed the tool to be useful in assessing real-world impacts of human activity. Overall, the feedback from assessors was that the WATWC had been clear and straightforward to use, but that there would be significant challenges in assessing welfare impacts by scenarios where there is limited data on cetacean health and behavioural responses. This however presents the opportunity for the tool to be used to help identify situations where key welfare-related data are lacking.

3. Next steps

- 3.1 We are seeking endorsement on the final tool from the WKMWI WG and suggestions for potential future practical application within the IWC. Any further feedback on the tool and how it could be refined would also be welcomed.
- 3.2 Some initial views on how the tool could be used include:
- Using WATWC assessments to inform advice for better management of whale-watching tourist operations to minimise impacts on cetacean welfare.
 - Identifying high priority areas where funding could be provided to support further research to support assessments of welfare impacts.