

Review of methodology and main results of the JCP analysis of cetacean densities in the context of marine renewable development.

Marine Mammal Scientific Support Research Programme MMSS/001/11

MR 6.1 Report

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Executive Summary

There are a number of potential issues affecting the populations of cetaceans living in or using UK waters. Without knowing the distribution and abundance of these animals the ability to assess how any of these issues could be affecting UK cetaceans is limited.

The revised Joint Cetacean Protocol (JCP) Phase III report attempted to estimate the abundance and distribution of cetaceans from a disparate data set of dedicated and platform of opportunity surveys. It also considered trends in cetacean abundance in the North Sea and waters out to the shelf-edge west of the UK and Ireland, also examining subareas within that area.

The modelling of the data involved sophisticated statistical methods and required various simplifications to be made. A formal model selection process was used but alternative models might produce very different estimates. It is recommended that work is carried out to explore whether moving to indices of abundance and/or maps of relative densities will simplify the model and reduce the risk of producing misleading results without compromising the results of the project.

For some species, the patterns identified by the models are inconsistent with other available sources of information. In particular, the JCP estimate for harbour porpoise abundance in 1994 is difficult to reconcile with that from the SCANS survey.

The JCP report contains many important caveats about the robustness and reliability of its results. It is not obvious that the results of the analyses it contains provide a suitable basis for the conservation and management of cetacean populations around the UK.