

UK Marine Mammal Welfare Workshop

Cavalry and Guards Club, London

3rd December 2019



Common dolphin © Nicola Hodgins / WDC

WHALE AND
DOLPHIN
CONSERVATION



Wild Animal Welfare
Committee

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Whale and Dolphin Conservation (WDC)

www.whales.org

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WDC is the leading global charity dedicated to the conservation and protection of whales and dolphins. We defend these remarkable creatures against the many threats they face through campaigns, lobbying, advising governments, conservation projects, field research and rescue.

Wild Animal Welfare Committee (WAWC)

www.wawcommittee.org

WAWC is a registered charity, SC045958.

The Wild Animal Welfare Committee (WAWC) was established to provide independent advice and evidence about the welfare of free-living wild animals in the UK, aiming to reduce harm to animals and prevent suffering caused by human activity.

Executive Summary

On Tuesday 3rd December 2019, Whale and Dolphin Conservation (WDC) and the UK Wild Animal Welfare Committee (WAWC) convened some of the UK's leading experts in marine and terrestrial mammal welfare, including those with veterinary, biological, behavioural, legal and policy backgrounds, to discuss legal and policy requirements.

Animal welfare is a cross-disciplinary, multi-faceted field involving science-based decision making and the development and enforcement of pertinent policy and legislation. Aspects of animal welfare have been debated across different human philosophies and cultures for thousands of years. However, modern scientific developments, particularly in the fields of animal physiology and behaviour, have enabled the development of metrics for animal welfare impact assessment which can be used to quantify and manage animal welfare outcomes across a range of scenarios and which place emphasis on the individual animal.

Participants agreed the following statement on marine mammal welfare.

Marine Mammal Welfare Expert Statement

Animal welfare is a cross-disciplinary, multi-faceted field involving science-based decision making. Animal welfare professionals from a diverse range of backgrounds, experience and expertise gathered at the London workshop and concluded that:

Welfare of individual marine mammals and the resulting consequences for their conservation should be fully taken into consideration when making and implementing policy decisions regarding activities that affect marine mammals.

Policy and legislation should recognise that marine mammals are sentient and create a legal obligation to pay full regard to their welfare requirements.

Strong policy and legislation on marine mammal welfare would better reflect societal values, and requirements under various national and international legal regimes, and could also enable more targeted and effective conservation actions.

Impacts on the welfare of individuals may be an indicator of potential threats towards social units, or whole populations. It is essential that welfare impacts are monitored to objectively measure welfare status over time. In line with Environmental Impact Assessments, animal welfare impact assessments should be required for activities that may impact on marine mammals.

In addition to injury and death, disturbance from human activities can have substantial welfare impacts: although requirements to minimise disturbance may exist in legislation, these are often not implemented or enforced. There should be consistency between taxa in the way that welfare legislation is applied across different protected species.

Legislation that seeks to protect marine mammals or impacts on them must address the impact on the animal, rather than the intent (e.g., knowingly, recklessly or deliberately) of those conducting the activity that causes the impact.

Marine Mammal Welfare Workshop

On Tuesday 3rd December 2019, Whale and Dolphin Conservation (WDC) and the UK Wild Animal Welfare Committee (WAWC) convened some of the UK's leading experts in marine and terrestrial mammal welfare, including those with veterinary, biological, behavioural, legal and policy backgrounds, to discuss legal and policy requirements, as well as practical implementation. Major General Patrick Cordingley welcomed us to the venue.



Marine Mammal Welfare Workshop participants © WDC

Pete Goddard, Chair of the Wild Animal Welfare Committee introduced us to the WAWC, created in 2014 to promote the welfare of wild animals and, in particular, to highlight suffering and reduce harmful effects wherever possible, through science and policy. Pete emphasised how little is known about the welfare of wild animals and in particular marine species. Often wild animal welfare is considered secondary to sustainability or conservation targets. The seven principles for minimising welfare harm when humans impact upon wild animals were introduced (Dubois et al., 2017). Such principles provide a framework that should underline and assist with evaluation of animal welfare where there is any management activity or other anthropogenic impact.

Chris Butler-Stroud, CEO of Whale and Dolphin Conservation, informed the workshop that welfare is embedded within WDC's mandate. Intrinsic rights are important to WDC's work, as is considering cetaceans as individuals and not just as populations or species. Care is needed when considering the language used, for example, around 'stock' rather than population where, for example 'stock' is a term used for a resource that is to be exploited whereas 'population' is a more neutral term. The EU Habitats Directive does consider individuals and there is a growing movement voicing concern regarding marine mammal welfare, but science is not at the forefront of the current debate. Using only population estimates to assess pressures on marine mammals does not properly reflect individual suffering, and nor does the threat of extinction. Better understanding of the suffering of individuals can help motivate change.

Animal welfare is a cross-disciplinary, multi-faceted field involving science-based decision making, which can assist in the development and enforcement of pertinent policy and legislation. Aspects of animal welfare have been debated across different human philosophies and cultures for thousands of years. However, modern scientific advances, particularly in the fields of animal physiology and behaviour, have enabled the development of animal welfare impact assessment models which can be used to quantify and manage animal welfare outcomes across a range of scenarios.

Sociality in cetaceans

Philippa Brakes presented on animal welfare and sociality in cetaceans. Emergent evidence of aspects of sociality, such as social structure and social learning, across many vertebrate taxa - including marine mammals - requires a more detailed consideration of the influence of these processes on animal welfare outcomes. Sociality can be dynamic over the developmental stages of a marine mammal's lifespan: it can provide protection through safety in numbers; influence breeding outcomes via mate choice and alloparental care; influence foraging success through transmission of social information and co-operation; and provide opportunities for the spread of novel behaviour. However, there are also potential costs associated with sociality, including increased exposure to infection, increased risk of predation and competition for resources. And, while social learning may provide an important mechanism for resilience in changing environments, it also provides the potential to increase vulnerability or facilitate the spread of maladaptive behaviours. Human impacts on the welfare of marine mammals living in social groups can be both acute and chronic. The implications of sociality for marine mammal welfare has been explored through David Mellor's Five Domains Model for animal welfare (Brakes, 2019). This model can also be used to help shift the focus of animal welfare efforts beyond just survival, toward individuals thriving. The challenge now is to incorporate aspects of sociality into welfare impact assessments for marine mammals.

Marine mammal welfare considerations

Much of the presentation made by Vassili Papastavrou and Russell Leaper can be found in the paper “Why management decisions involving marine mammals should include animal welfare” (Papastavrou et al. 2017) which argues that both welfare and conservation should be taken into account when making management decisions regarding marine mammals.

The current approach (in the UK and elsewhere) does not adequately address welfare concerns for marine mammals. Disturbance can have profound welfare implications and requirements to minimise disturbance are apparent in existing legislation. These requirements appear to be implemented for some terrestrial species, but not properly for marine species where the consequences of disturbance are often much less visible. For example, bats are on the same Annex of the Habitats Directive as cetaceans but, while individual bats are protected from disturbance, the same is not the case for cetaceans. Regulators in the UK have often taken the position that a population-level effect has to be demonstrated for disturbance to have occurred to marine mammals, which does not match the apparent intent of the legislation.

There are several examples of existing national legislation and international treaties which take into account the welfare of individual marine mammals. Such legislation reflects general societal concerns regarding the importance of animal welfare. These include the 1972 US Marine Mammal Protection Act (which addresses “takes” of individual animals); the Agreement for the Conservation of Small Cetaceans in the North and Baltic Seas (which seeks to reduce bycatch towards zero); the Antarctic Treaty which prohibits activities which “molest, handle, capture injure or kill a native mammal or bird”. In addition, the International Whaling Commission banned the use of the cold (non-exploding) harpoon on welfare grounds. At an EU level, Article 13 in the consolidated Treaty on the Functioning of the European Union, recognises animals as sentient beings and requires that full regard be paid to their welfare requirements as a result.

Thus, consideration of marine mammal welfare and sentience should be maintained or improved in any draft policy and legislation being developed. Disturbance, injury or death should be addressed at the level of the individual marine mammal but this is often not the case.

Measuring animal welfare impacts could also enable more targeted and effective conservation actions. This is because it is easier to determine animal welfare impacts than population impacts in the short term; population level effects are more difficult to determine because of uncertainty in population estimates and their unfolding over a much longer time period, with the suggestion that any intervention may then be too late.

Following Vassili’s presentation, a preliminary draft of a possible workshop statement was discussed extensively, amended and then agreed by the workshop participants.

Discussion during the workshop

Points emerging during the development of the statement

Some points that emerged during the discussion included the following. Legislation exists that deals with animal welfare. For example, EU Member States have a duty under Article 13 in the consolidated Treaty on the Functioning of the European Union to consider animal welfare. However, implementation and enforcement are lacking.

Workshop participants recognised that it is important to identify emerging customary legal norms and societal values and inform policy makers of the value of animal welfare.

It was also highlighted that it is likely that future legislative changes in the UK will result in duties towards wild animals being debated over the course of 2020. It will be important to ensure language encompasses full regard for welfare harms, rather than just regard for wild animals under human control or protection that exists only in certain circumstances and commensurate only with human interests.

Marine Mammal Welfare Legislation

Angus Nurse provided an initial assessment of marine wildlife welfare legislation as part of a project which is ongoing. This preliminary analysis identified that while a general framework of marine mammal protection exists, contemporary legislation is incomplete in respect of providing fully effective marine mammal welfare protection. A number of core issues were identified relating to: inadequacy of legislation; inconsistency of legislation; inadequacy in enforcement; and incoherence and application of penalties.

Overall marine wildlife is protected by means of a range of international law, EU and UK law. However, IPBES (2019) indicate that globally approximately 33% of marine mammals are at risk of extinction and that threats facing marine wildlife include pollution, climate change and human interference. The analysis identifies that while international law mechanisms such as the EU Habitats Directive and the Bern Convention provide for broad protection of wildlife and set basic standards of legal protection, the wording of legislation and its interpretation create difficulties. In particular, legislation creates offences in respect of deliberate killing, disturbance or the destruction of these species or their habitat. However, potentially limiting protection to *deliberate* killing requires further examination of how legislation deals with accidental or negligent killing of wildlife or harm caused by omission.

This presentation also examined the Law Commission's contention that several species protected by the Bern Convention are not (adequately) protected under UK domestic law (Law Commission, 2015: 60). It considered potential gaps in the protection of marine wildlife,

in the extent of wildlife protection and consistency in wildlife protection. In addition, inadequacies in the legal definition of disturbance and in the application of animal welfare legislation such as the Animal Welfare Act 2006 to marine wildlife protection were considered.

While research and evaluation is ongoing, the provisional conclusion was that while wildlife legislation provides for broad protection of marine wildlife, there remain some issues in respect of: the extent of legislative protection; consistency with international law provisions; loopholes or inconsistency in legislation; and the extent to which legislation is effectively enforced. Potentially strong legislation on paper is arguably not backed by an effective enforcement regime. In addition, Brexit represents a possible risk of weakening marine wildlife protection or at least creating a position of inconsistency between UK marine wildlife protection and wider European marine wildlife protection. Accordingly, a more in-depth review of legislation and legislative enforcement is required to address the extent to which current legislation adequately provides for effective marine wildlife welfare.

Once completed, the analysis will result in two publications: a literature review on contemporary issues affecting marine wildlife welfare and a law reform policy brief.

Discussion during the workshop

Existing legislation is broadly adequate, but with some important gaps and inconsistencies. Use of the term ‘significant’ impact on a species or specific population of that species is too imprecise a term and arguably lacks specificity and adopts too narrow a conception of harm for considering welfare infringements. The interpretation of legislation should set a lower threshold for consideration of welfare harm within the classification of offences.

Article 13 in the consolidated Treaty on the Functioning of the European Union and the use of the term ‘sentience’ are useful from a symbolic point of view. They are less useful when considering prosecution and enforcement action. Article 13 operates at a high level, figuratively, or in a ‘constitution-like’ manner. This is important and different to the Animal Welfare Act(s), and whereas implementation of Article 13 should include enforcement of the principle of sentience, this doesn’t automatically follow whereas the individualised protection of animals that exists in other legislation such as the Animal Welfare Act(s) creates offences that are directly enforceable and subject to sanction (e.g. prison sentences for selected animal abuse). Article 13 itself does not provide adequate detail of offences.

The Animal Welfare Act 2006 does focus on the needs of individual animals, but a wild vertebrate is only a ‘protected animal’ under the Act if it is ‘under the control of man’¹. So, the circumstances under which the Animal Welfare Act provides protection for marine

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/798010/wml-gu02-animal-welfare-act-wildlife-managment.pdf

mammals are limited, for example, if an individual was bycaught in a net. And, the Act makes it an offence to intentionally cause 'unnecessary suffering' to a protected animal, but it is difficult to prove 'intent' and there is sometimes a need to interpret whether any harm caused was 'unnecessary'.

General provision of welfare considerations is mostly absent from the Habitats Regulations unless it relates to disturbance, or a deliberate action that will impact upon wildlife. Only then are there specific prohibitive means to address the welfare issue. If welfare issues are accidental or an unintended consequence or by-product of an otherwise lawful action, then the action is arguably not deliberate and becomes difficult to prosecute. Accordingly, a binding notion of welfare that applies to all actions is arguably not in the legislation. Prosecuting welfare harms as an offence becomes deeply problematic where somebody has ignored or is unaware of the welfare impacts of their actions. This is because the wording of some legislation creates offences only in respect of deliberate actions or those that an individual should have known might be their actions are problematic. Thus, 'deliberate', 'accidental' and 'non-intentional' are terms that may by necessity need to be used together in order to cover all aspects of welfare harm under 'criminal law'. 'Deliberately' and 'recklessly' are both poor language for enforcement. The burden is on the prosecution to prove any impact of actions. Proof of what the offender understood or knew is required, hence little enforcement action is taken. How can the legislation be applied in a wider context, when 'deliberate' is difficult to prove?

Therefore, future legislation that seeks to protect marine mammals, or impacts upon them, must address the impact upon the animal, rather than the intent (e.g. knowingly, recklessly or deliberately) of those conducting the activity that causes the impact.

Marine Mammal Welfare Assessment

The protection of marine mammals currently focuses on survivorship at a population level for conservation purposes. By comparison, there has been little emphasis on the welfare of individual marine mammals but monitoring welfare impacts on individual animals could bring multiple benefits. These include that humans have a legal and moral obligation to protect animals from anthropogenic welfare impacts, that individual animals will benefit and that welfare indicators could act as early indicators of problems for the conservation of populations.

In 2016, the International Whaling Commission held a workshop on the welfare of marine mammals, at which some preliminary welfare assessment work began. This led, with support from DEFRA, to the development, by Professor Christine Nicol, Mark Simmonds and colleagues, of a Welfare Assessment Tool for Wild Cetaceans (WATWC), which has recently been used in a trial assessing the impacts of different intensities of whale watching activity (Nicol et al., 2020).

Ahead of the UK marine mammal workshop, Dr Sandra Baker, who has a background in assessing the welfare impacts of terrestrial wildlife management interventions, prepared a welfare assessment exercise focusing on harbour porpoises in the Southern North Sea Special Area for Conservation. She adapted the WATWC to facilitate assessment of cumulative impacts (a recommendation of the IWC workshop) as well as lethal impacts. This allowed assessment of the impacts of noise on a harbour porpoise from an 8-month period of pile-driving during construction of an offshore wind farm, and assessment of the fatal by-capture of a harbour porpoise in a bottom-set fishing net. Sandra circulated the welfare assessment exercise to workshop participants for completion prior to the workshop and facilitated a group assessment exercise at the conference.

Welfare Assessment Exercise

Twenty-five experts attending the workshop participated in the group assessment and twelve participants returned individual assessments beforehand. The workshop participants were split into four teams to undertake the assessment.

The group assessment process led to enthusiastic discussion about the wide range of welfare concerns likely to be involved in both scenarios that were assessed. Participants reported that they found the assessment of the bycatch event more straightforward than that of the longer-term, noise pollution event. There also seemed to be greater agreement among participant groups regarding the impacts of bycatch than regarding those of the noise pollution, with participants saying that they needed more information to make more confident assessments, particularly of long-term noise exposure.

It is planned that the results of the welfare assessment exercise will be written up to produce a short paper for publication, and the preliminary individual assessments will provide useful information for this on the variability in welfare scores allocated. The process may lead to recommendations regarding future development of the model and about research that is needed to fill gaps in the data available on welfare impacts.

Discussion of the welfare assessment exercise

Many knowledge gaps were identified, preventing welfare assessments from being made with great confidence. For example, regarding bycatch, there is a lack of knowledge on times to death when porpoises (and other marine mammals) drown in fishing nets, so estimates were based on theoretical aerobic dive length and known maximum dive durations. For noise impacts resulting from pile driving, there are few data on how animals are displaced and how foraging and other behaviours are affected. Some confidence resulted from conducting the exercise as a group, rather than individually, due to the range of expertise in the team. This

has been a preliminary assessment exercise and it is not intended that the results should be used at this stage except to demonstrate the assessment process, identify knowledge gaps and potentially to develop the assessment model.

Acknowledgements

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References

Brakes, P. 2019. [Sociality and Wild Animal Welfare: Future Directions](#). *Frontiers in Veterinary Science*, 6, 62. doi: 10.3389/fvets.2019.00062

Dubois S., Fenwick, N., Ryan, E.A., Baker, L., Baker, S.E., Beausoleil, N.J., Carter, S., Cartwright, B., Costa, F., Draper, C., Griffin, J., Grogan, A., Howald, G., Jones, B., Littin, K.E., Lombard, A.T., Mellor, D.J., Ramp, D., Schuppli, C.A., Fraser, D. 2017. [International consensus principles for ethical wildlife control](#). *Conservation Biology*. <https://doi.org/10.1111/cobi.12896>

IPBES. 2019. [Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services](#). S. Díaz, J. Settele, E. S. Brondízio E.S., H. T. Ngo, M. Guèze, J. Agard, A. Arneeth, P. Balvanera, K. A. Brauman, S. H. M. Butchart, K. M. A. Chan, L. A. Garibaldi, K. Ichii, J. Liu, S. M. Subramanian, G. F. Midgley, P. Miloslavich, Z. Molnár, D. Obura, A. Pfaff, S. Polasky, A. Purvis, J. Razzaque, B. Reyers, R. Roy Chowdhury, Y. J. Shin, I. J. Visseren-Hamakers, K. J. Willis, and C. N. Zayas (eds.). IPBES secretariat, Bonn, Germany. 56 pages.

Law Commission. 2015. [Wildlife Law Volume 1: Report](#). London: Law Commission.

Nicol, C.J., Bejder, L., Green, L., Johnson, C.B., Keeling, L.J., Noren, D.P., van der Hoop, J. and Simmonds, M.P. 2020. [Anthropogenic threats to wild cetacean welfare and a tool to inform policy in this area](#). *Frontiers in Veterinary Science*. doi: 10.3389/fvets.2020.00057

Papastavrou, V., Leaper, R. and Lavigne, D. 2017. [Why management decisions involving marine mammals should include animal welfare](#). *Marine Policy*, 79, 19-24.

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