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ANY OTHER BUSINESS

Comments on document MEPC 74/17/2 on "Advancing international collaboration for quiet ship design and technologies to protect the marine environment"

Submitted by FOEI, WWF, IFAW, Pacific Environment and CSC[1]

SUMMARY

Executive summary:	This document provides comments on document MEPC 74/17/2 on "Advancing international collaboration for quiet ship design and technologies to protect the marine environment" submitted by Canada and France. The co-sponsors draw attention to the worldwide impact of underwater noise on the marine environment, the urgency of the issue, and to expressions of support for mitigation measures from international fora and civil society.
Strategic direction, if applicable:	4
Output:	Not applicable
Action to be taken:	Paragraph 11
Related documents:	MEPC 68/INF.26; MEPC 71/16/5; MEPC 72/16/5, MEPC 72/INF.9; MEPC 73/18/4, MEPC 73/INF.23, MEPC 73/INF.26; MEPC 74/17/2 and MEPC.1/Circ.833

Introduction

1 This document is submitted in accordance with the provisions of paragraph 6.12.5 of the document on *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.1) and comments on document MEPC 74/17/2 (Canada and France).

[1] Preparation of this submission was assisted by the Antarctic & Southern Ocean Coalition, the Natural Resources Defense Council and OceanCare.

2 Since MEPC 71 (July 2017) the Committee has considered documents MEPC 71/16/5, MEPC 72/16/5, MEPC 72/INF.9, MEPC 73/18/4, MEPC 73/INF.23 and MEPC 73/INF.26 which relate to the impact of underwater noise from shipping and include potential measures for mitigation. The co-sponsors welcome the information provided by Canada and France in document MEPC 74/17/2, which expands on these previous submissions to include various international efforts that have been undertaken to address and understand the adverse impacts of underwater noise from commercial shipping on marine life. The co-sponsors welcome the proposal in document MEPC 74/17/2 to hold discussions with the aim of a new work output proposal for MEPC 75 to address identified needs related to reducing underwater vessel noise. The co-sponsors encourage all interested parties to participate in these discussions.

Growing awareness of the impact of underwater noise on marine life

3 The impacts of underwater noise from commercial shipping are global as summarized most recently in documents MEPC 72/INF.9 and MEPC 73/INF.23. The effects can reach marine life at all ecosystem levels, from large marine mammals to microscopic zooplankton. New research and evidence continue to emerge, linking vessel noise to the disturbance of marine life. For example, in a recent study, disturbance from vessel traffic was shown to disrupt surface feeding by Black Sea harbour porpoises in the Istanbul Strait, with them favouring the northern portion of the Strait where traffic is less prevalent.[2] Similarly, shipping noise has also been shown to reduce the foraging efficiency of harbour porpoises near Aarhus Harbour, Denmark.[3]

4 In another case, regular vessel traffic in the Hauraki Gulf reduced the communication space available to endangered Bryde's whales by 87.4% and to bigeye fish by 61.5%.[4] As vessel traffic is projected to increase by up to 75% in this region, this loss of communication space will likely have chronic effects on the health of both species. Vessel traffic noise can also affect the communication space of animals in marine protected areas, an impact that is difficult for managers to prevent.[5] In the Arctic, vessel traffic noise may have impacts on species in nearshore traditional hunting grounds, potentially endangering the food security of local communities.[6] There is now widespread agreement that effective action is currently needed to address the existing underwater noise produced by commercial vessels, as well as preventing increasing noise in the future.

5 The impacts of underwater noise from commercial shipping are being examined by several international and regional bodies. In addition to the work of the Arctic Council and the United Nations Open-ended Informal Consultative Process (UN ICP) that was highlighted in the submission by Canada and France, the Convention for the Protection of the Marine

[2] Bas, A. A., Christiansen, F., Öztürk, A. A., Öztürk, B., & McIntosh, C. (2017). The effects of marine traffic on the behaviour of Black Sea harbour porpoises (Phocoena phocoena relicta) within the Istanbul Strait, Turkey. *PloS one*, 12(3), e0172970.

[3] Wisniewska, D. M., Johnson, M., Teilmann, J., Siebert, U., Galatius, A., Dietz, R., & Madsen, P. T. (2018). High rates of vessel noise disrupt foraging in wild harbour porpoises (Phocoena phocoena). Proceedings of the Royal Society B: Biological Sciences, 285(1872), 20172314.

[4] Putland, R. L., Merchant, N. D., Farcas, A., & Radford, C. A. (2018). Vessel noise cuts down communication space for vocalizing fish and marine mammals. *Global change biology*, 24(4), 1708-1721.

[5] Gabriele, C. M., Ponirakis, D. W., Clark, C. W., Womble, J. N., & Vanselow, P. (2018). Underwater Acoustic Ecology Metrics in an Alaska Marine Protected Area Reveal Marine Mammal Communication Masking and Management Alternatives. *Frontiers in Marine Science*, 5, 270.

[6] Raymond-Yakoubian, J. (2018). Arctic Vessel Traffic and Indigenous Communities in the Bering Strait Region of Alaska. *Sustainable Shipping in a Changing Arctic*.

Environment of the North-East Atlantic (the OSPAR Convention) and the International Whaling Commission (IWC) have provided updates on their own work on underwater noise to the Committee in documents MEPC 72/INF.9 and MEPC 73/INF.26, respectively. Individually and as part of a joint working group, the Convention on Migratory Species, the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area (ACCOBAMS) and Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas (ASCOBANS) have also studied the impacts of underwater noise on cetaceans. Most recently the General Fisheries Commission for the Mediterranean (GFCM) and OceanCare co-hosted a workshop on anthropogenic underwater noise and impacts on fish, invertebrates and fish resources.

6 In response to the mounting evidence of the impacts of underwater noise, including vessel noise, to marine life, several international bodies have issued calls to action. The 2018 UN ICP focused on anthropogenic underwater noise and the seventy-third meeting of the United Nations General Assembly passed the resolution on Oceans and Law of the Sea (A/RES/73/124), which "notes that ocean noise has potential significant impacts on marine resources" and:

> "Calls upon States to consider appropriate cost-effective measures and approaches to assess and address the potential socioeconomic and environmental impacts of anthropogenic underwater noise, taking into account the precautionary approach and ecosystem approaches and the best available scientific information, as appropriate."[7]

7 Additionally, at its sixty-seventh Meeting in Florianopolis, Brazil, IWC passed by consensus a resolution on underwater noise. The resolution notes "that anthropogenic underwater noise is not persistent and can be reduced in the marine environment immediately by reducing the emissions of noise at the source" and recommends Contracting Governments:

> "Incentivize the development, adoption and voluntary transfer, on mutually agreed terms, of technologies and strategies that mitigate the impacts of anthropogenic underwater noise on cetaceans from various activities that produce the noise; If appropriate, this could be carried out through regulatory measures".[8]

8 There is also growing public awareness about the impacts of underwater noise on the marine environment and coastal communities whose cultures and livelihoods depend upon healthy oceans. WWF's Global Arctic Programme launched a petition[9] on 28 February 2019. The petition urges Arctic states to take a precautionary approach to hold underwater noise at current levels until safe levels for Arctic marine species are determined; commit to research and cooperation to understand impacts of underwater noise, including coastal and indigenous communities; and develop strategies in line with Sustainable Development Goal 14.1 to manage underwater noise in a healthy and safe manner in the Arctic. Over 30,000 signatures from over 82 countries have been collected in just two weeks, clearly demonstrating widespread concern and a strong desire for leaders to take action to address this important and urgent issue.

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7 General Assembly resolution 73/124, Oceans and the law of the sea. A/RES/73/124. (11 December 2018). Available from http://www.un.org/en/ga/73/resolutions.shtml

8 International Whaling Commission Resolution 2018-4, Resolution on Anthropogenic Underwater Noise. (14 September 2018) Available from: https://iwc.int/private/downloads/NXuLyqb3JCOtNoVqd7O5Jg/67_GEN_05_Outcomes_Final.pdf

9 https://arcticwwf.org/action/noise/

9 In addition to technological options to reduce the noise output of individual vessels, interested nations may wish to consider other measures. Speed reductions have been proposed as a short-term measure to meet GHG emission reduction targets and have also been shown to result in substantial noise reduction across the fleet.[10] Other measures could also include routeing around protected areas or areas known to be particularly important for sensitive species.

10 It is well recognized that underwater noise from shipping has contributed to increased noise levels in many regions around the world. Chronic noise from shipping is known to be the main contributor to the doubling of low-frequency levels every decade throughout the second half of the 20th century.[11] Despite the development of the *Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life* in 2014 (MEPC.1/Circ.833), there has been limited application of quieting technologies. The co-sponsors firmly believe that underwater noise poses a credible risk to the health of the marine environment and that further and urgent action from the Committee is necessary.

Action requested of the Committee

11 The Committee is invited to note the information contained in this document, and encourage Member States to bring forward a proposal for a new work output on underwater noise to MEPC 75 for consideration.

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10 MacGillivray, A. and Z. Li. 2018. Vessel Noise Measurements from the ECHO Slowdown Trial: Final Report. Document 01518, Version 3.0. Technical report by *JASCO Applied Sciences* for Vancouver Fraser Port Authority ECHO Program.

11 McDonald, M. A., Hildebrand, J. A., & Wiggins, S. M. (2006). Increases in deep ocean ambient noise in the Northeast Pacific west of San Nicolas Island, California. *The Journal of the Acoustical Society of America*, 120(2), 711-718.