Work to review International Maritime Organization and Antarctic Treaty system guidelines and agreements concerning ship biofouling and ballast water management

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**Information Paper presented by Australia, New Zealand and the United Kingdom**

Summary

Marine non-native species present an increasing threat to Antarctic marine ecosystems, particularly under climate change. This paper sets out progress with ongoing work initiated by the CEP Subsidiary Group on Climate Change Response (SGCCR) to review the guidelines and agreements of the International Maritime Organisation (IMO) and Antarctic Treaty System (ATS) concerning ship biofouling and ballast water management, to check adequacy for the Southern Ocean and vessels moving from region to region.

Background information

Non-native species drive ecological changes that impact biodiversity in almost all marine environments and are one of the most pressing global conservation concerns. There is growing awareness that ship activity globally spreads invasive marine non-native species, especially through transport in ballast water and hull fouling. So far, no established populations of non-native marine species are confirmed in the waters around Antarctica; however, establishment may become more likely as the effects of climate change become more pronounced (ATCM XXX IP37; ATCM XXXIX IP27; ATCM XLII IP27; ATCM XLIII IP6).

The threats to habitats and ecosystems by invasive marine non-native species have been recognised by policymakers globally and within the ATS, and steps have been taken to reduce the risk:

* The IMO *International Convention for the Control and Management of Ships' Ballast Water and Sediments* (Ballast Water Management Convention) was adopted in 2004 and entered into force globally in 2017. Under the Convention, all ships in international traffic are required to manage their ballast water and sediments to a certain standard, according to a ship-specific ballast water management plan.
* ATCM [Resolution 3 (2006)](https://www.ats.aq/devAS/Meetings/Measure/365?s=1&from=1/1/1958&to=1/1/2158&cat=0&top=0&type=0&stat=0&txt=ballast&curr=0&page=1) on Ballast water exchange in the Antarctic Treaty Area recommends that the annexed [*Practical Guidelines for Ballast Water Exchange in the Antarctic Treaty area*](https://documents.ats.aq/recatt/att345_e.pdf) be used by all ships in the Antarctic Treaty area, except those referred to in Article 3, paragraph 2, of the Ballast Water Management Convention.
* In 2007, the IMO Marine Environment Protection Committee (MEPC) adopted [Resolution MEPC.163(56)](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/MEPCDocuments/MEPC.163(56).pdf), adopting the Guidelines for Ballast Water Exchange in the Antarctic Treaty area (detailed above), and inviting Governments to apply them as an interim measure pending entry into force of the IMO Ballast Water Management Convention. Notably, the guidelines do not replace the requirements of the Ballast Water Management Convention, but provide an interim Ballast Water Regional Management Plan for Antarctica under Article 13(3).
* In 2008, the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) adopted [Recommendation 28/XXVII](https://www.ccamlr.org/sites/default/files/r28-xxvii_6.pdf) on Guidelines for Ballast Water Exchange in the CAMLR Convention Area North of 60°S, which recommends that all ships engaged in harvesting and associated activities in the CAMLR Convention Area apply the ATCM and IMO Guidelines for Ballast Water Exchange in the Antarctic Treaty Area, and Guidelines for Ballast Water Exchange in the CAMLR Convention Area north of 60°S, as an interim measure before the Ballast Water Management Convention comes into force.
* In 2011 the MEPC adopted the *Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species* (the Biofouling Guidelines), via [resolution MEPC.207(62)](https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/RESOLUTION%20MEPC.207%5b62%5d.pdf), to provide a globally consistent approach to the management of biofouling. The guidelines are intended to provide useful recommendations on general measures to minimize the risks associated with biofouling for all types of ships.

Given developments in technology, management practices and international instruments to reduce the risk of marine non-native species introductions by ship traffic, as detailed above, the CEP has agreed to consider the issue further. Specifically, the CEP Climate Change Response Work Programme (CEP XIX Final Report, Appendix 2) identifies the issue of ‘Enhanced potential for non-native species (NNS) introduction, establishment’, and an associated action to undertake a ‘Review of IMO biofouling guidelines to check adequacy for Southern Ocean and vessels moving from region to region’. Furthermore, the CEP 5-Year Work Plan (CEP XXIII Final Report, Appendix 1) contains the action to ‘Review IMO report on biofouling guidelines’ under the priority issue ‘Introduction of non-native species’.

Recent developments

As outlined in ATCM XLIV/WP037, the SGCCR reviewed tasks identified in the CCRWP that could be advanced during the 2021-22 intersessional period. Recognising that the CCRWP and CEP 5-Year Work Plan prioritise efforts to minimise the risk of marine non-native species introductions in a changing climate, the Subsidiary Group encouraged members to undertake a review of IMO and ATS guidelines and agreements concerning ship biofouling and ballast water management.

Preliminary work has been undertaken by Australia, New Zealand and the United Kingdom, with progress to date including:

* the compilation of relevant scientific papers;
* the review/summary of CEP papers and related discussions relevant to the introduction of marine non-native species, biofouling and ballast water management; and
* the compilation of related ATS and IMO guidelines and agreements, and the initiation of work for their consideration and comparison.

Conclusions and next steps

In recent years, there have been substantial developments in knowledge of the risk marine invasive non-native species present to Antarctic marine ecosystems. Concurrently, there have been developments in the availability of methods and technologies to reduce the risk of non-native species introductions associated with ballast water and vessel biofouling.

During the 2022-23 intersessional period Australia, New Zealand and the United Kingdom intend to continue the review of IMO and ATS guidelines and agreements concerning ship biofouling and ballast water management, building on the preliminary work summarised above, with a view to developing relevant recommendations for consideration by the CEP at XXV. Engagement by other interested Members and Observers in this informal work would be greatly welcomed.