Response to Editor Comments

Topic Editor Decision: Publish subject to technical corrections (22 Jul 2020) by David Turner

Comments to the Author:

This is a pioneering work. The authors have addressed the Reviewers' comments satisfactorily. Some small technical corrections should be made:

1. **Practical salinity is a dimensionless quantity, so the “unit” PSU should be deleted throughout the manuscript**

   We have removed most of the PSU units in the paper. In line 225 in which this “unit” is introduced the first time we write “…in Gothenburg (salinity, PSU, 14)” so that the reader knows we refer to practical salinity unit in the paper. We also mention “PSU” in the header of Table 4 once to make it clearer.

2. **The unit “ton” (imperial ton = 2240 lb) is used through most of the manuscript. I am aware that old habits die hard in the shipping industry and that the use of this unit may well persist. A note at the start of the paper would help to clarify that this old unit is used rather than “tonne” (= 1000 kg).**

   Thank you for this comment. We have clarified in the text that we do refer to “tonne” throughout the text. For example in Table 6 we changed the units to $[10^3 \text{ kg}]$. In the text below the table we use the unit “t”.

   We also removed the unit “kton” that was previously used in the text.

3. **On a point of consistency, the adjective “riparian” is sometime capitalised, sometimes not. Consistent use is important: the uncapitalised version is to be preferred.**

   Thank you, changes have been made as suggested.

4. **Lines 115 and 122: better to avoid the use of “species”, which also has biological connotations. “contaminant”, also used later in the text, is a good alternative**

   The word “species” have been replaced with better alternatives, as suggested.

5. **Line 128: using the term “days spent at sea” does not fully address the Reviewer’s concern since the implication for many readers is the number of days the boat is being actively used. “days spent in the water” would be much clearer**

   Thank you, this change does make it clearer.

6. **Lines 190-191: the load factor (70%) is the same as quoted on line 183, i.e. not higher**

   We added slight clarifications to these lines. In Table 1 we present our values in which we base our computations. The survey data for OSB average engine load did not seem consistent with the other statistics and therefore we adjusted it upwards to 70% from 50%. We hope this is now clearer.
7. Line 335: should the second date be 3rd June?

According to our, admittedly, very limited statistics we have four dates: (1) the start date, (2) the day when 100% capacity is reached, (3) the day when the capacity starts to reduce gradually and (4) the date when capacity falls to 0. In this line 335 we refer to this “inner” date of (3) which is not in early June.

8. Table 6: I assume that the final column is millions of km, “10^6 km” would be clearer

Indeed, thank you!