

Thank you for your remarkable comments. All your comments were taken into consideration

RC 2 The paper serves a useful function of introducing the MAREL Carnot database to a broader community of users. It provides a description of the measurements taken and duration of records. It also provides several illustrative examples of how the data have been used in publications that advance understanding. These data will certainly have many future uses in scientific research, monitoring and forecasting. What is less clear is how they can be effectively used to improve policies and management, for example in achieving the objectives of the WFD and MSFD, beyond documenting ecological status and trends. Adding a short paragraph discussing how results could be used, e.g., in models that help set goals and guide adaptive management, would be helpful.

The manuscript would also benefit for some more English language editing. Some detailed comments below point out some examples.

Detailed editorial comments:

- 20 sends not send
21–23 use present tense, i.e. demonstrate and show.
28 phytoplankton is not phytoplanktons are
- 40–42 “marine environment, they are of insufficient temporal resolution to advance understanding of phytoplankton dynamics and eutrophication.”

AC *Done*

RC 2 • 45–46 repetitive

AC *corrected*

RC 2 • 54 Is it essential biodiversity variables (EVB), as used later, or important biodiversity variables (IVB)?

AC *I corrected this mistake. It is now essential (Essential Biodiversity Variables)*

RC 2 • 60 mucopolysaccharides or muco-polysaccharides, not mucco
68 French not French
77 In 2004 the MAREL Carnot monitoring station was installed in the French part of the English Channel.
101 ECC has a macro-tidal regime

AC *Done*

RC 2 • 105 mass that hugs the shore. How far offshore does this coastal water mass extend?

AC *We added this sentence: This coastal water mass is tide-dependent and can extend from 3 to 5 miles offshore.*

RC 2 • 108 Why isn't it the case that spring tide are stronger than neap tides?

AC *This statement was rephrased and corrected as follows:*

However, particle and nutrient transport, as well as exchanges between inshore and offshore water masses, are tide-dependent and are larger during a neap tide than during a spring tide

RC 2

- 132 Hence, some data for the year

AC *Done*

RC 2

- 241 Is there some text missing ahead of this paragraph, because the “indeed” doesn’t follow from the earlier paragraph?

AC *The word “Indeed” was removed.*

RC 2

- 242–243 These sentence doesn’t make much sense. Surely, nutrient concentrations are not made from space. Maybe restate this as “MAREL Carnot performs some measurements that are not made from space such as for nutrient concentrations.”

AC *This sentence was corrected as follows:*

MAREL Carnot provide measurements for parameters that cannot be measured from space such as nutrient concentration

RC 2

- 250 Don’t need another “indeed” here.

AC *Removed*

RC 2

- 257 their rather than his

AC *Done*