

Comment on essd-2021-466

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Referee comment on "Optical and biogeochemical properties of diverse Belgian inland and coastal waters" by Alexandre Castagna et al., Earth Syst. Sci. Data Discuss.,
<https://doi.org/10.5194/essd-2021-466-RC1>, 2022

This paper provides a database of coincident optical and biogeochemical parameters, which should be useful in a variety of applications, e.g., detection of algal blooms, ocean color algorithm development and validation. It should be especially helpful in coastal and inland waters.

This paper gives detail description of methodology and technique of acquiring and processing in-situ measurements which are state-of-art. Moreover, a certain uncertainty information are also appended. Thus it should be of good quality and well referenced.

Yet some improvement could be made regarding to:

- 1) Figure index and reference should be in the order following its appearance.
- 2) The sentence in line 27 begining with 'The PONDER project' is not correct in writing.
- 3) In line 286, 'due' should be 'due to'.
- 4) Method of interpolation mentioned in line 374 should be indicated explicitly.
- 5) Labels of axes in Figure 9 and Figure 14 are not correctly spelled.

6) 'Constants' does not appear to be necessary because they are widely accepted notations. Also, generally accepted notations are highly recommended, e.g., Edn(0+) could be replaced by Ed(0+) or Es.

7) .kml file is not contained in the data directory as described in 'README.txt'.

8) Station names in various data files (.csv or .xlsx) are not exactly same. For example, this in flow_cam data file is slightly different.

9) Number of measurements should be mentioned where SD (standard deviation, I think) appears.

10) Number of stations in iop_ad_meas is much more than in other data files. Please double check.

11) substrate data should include sampling location, data and time if possible.

12) If possible, relationships/inter-comparison among various parameters could be provided, though figures 9, 11 and 14 already illustrated some.