

Interactive comment on “A long term (1965–2015) ecological marine database from the LTER-Italy site Northern Adriatic Sea: plankton and oceanographic observations” by Francesco Acri et al.

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General comments The paper present a database composed of older data on paper and newer data recorded on spreadsheets and digital median for the northern Adriatic Sea. The database contains both hydrographic, chemical and biological data. Data collected comes from various research projects and monitoring programs. Consequently, sampling coverage, frequency and methodology used vary in the data set. The authors stress an aim to meet the requirements of Open Science and the FAIR data policy. Compilation of older data to extend long ecological times series back in time is very

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valuable for both anthropogenic disturbance and climate change influence. In addition, to foster open and ready access to these data sets will promote general use and rescue of already collected data. Some information about access to method protocols used would be informative. Also uncertainty statistic and quality codes indicating quality assurance level of data. Application of taxonomic lists for phyto- and zooplankton is an important aspect of this. Or comments on the lack of those. A table presenting characteristics of the main study areas would give a good overview. A more critical discussion regarding the potential of heterogenous time series to answer current ecological issue is requested. Any attempts to do so and the experience gained can be mentioned if available. Some information about the possibility to enter new data to the database and measures taken to promote homogenous and quality assured data should be added.

Detailed comments r. 19 Please define “NAS” at first instance. r.46-47 Has all these advantages been convincingly documented? In what context have they been validated if so? r. 97 To me the Adriatic Sea is part of the Mediterranean. Please specify better. r. 102-103 It appears peculiar that a period of eutrophication and oligotrophication are referenced by citations only 1 year apart? Is that correct and may the periods in question be specified in that case. r. 108-109 A table with the variables in question would be valuable to get a quick overview. r. 110-111 A table describing the key characteristics of the investigated Sea areas would be valuable. r. 119 Is there and method protocol ID associated with the records for the different variables? Table 2 .Please provide name of the pH and oxygen sensor. CTD only covers Conductivity, Temperature and Density. An indication of depth coverage and sampling frequency range would be informative. Pleases use $\mu\text{mol dm}^{-3}$ (or kg^{-1} , for clarity and consistency). r. 142. Table 1 rather seem to show the record for specific research vessels rather than expeditions (cruises). Please rephrase the table legend. r. 182. Is there any quality codes presented for the records to assess the level of quality assurance performed? Are any uncertainty statistics or method declarations available? r. 204 I don't understand “handing down” please rephrase. Do you mean internal education and recurring inter-calibration of taxonomic competence? r. 206 What taxonomic lists are used to ensure consistent classification

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of phyto- and zooplankton? r. 215 Both station coordinates and actually sampled coordinates should be used. Preferably with a 0.2 nm tolerance of station area. r. 227-228 It should be illustrative to give the distribution of samples divided in also chemistry and biology at least. r. 301-302. This is already presented at r. 116 and r. 26-27. Please harmonize and reduce text. r. 316-317. However, as pointed out variation in sampling coverage, frequency and methodology may impose constraints on this potential. Please consider a more critical evaluation of the ability of the database to r. 335-337 Right, but comparability of methodology and data format also important to compare time series across sea areas (e.g. between countries) and even between aquatic environments. r. 340-341 Are there any limitation regarding access to the data that need to be mentioned? Or do the B2Share, EODC and GEOSS system provide full access to the data? Any quarantine rules of data that apply? Conclusion: Here or elsewhere you may present if new data can be entered in the database and what measures that are taken to improve data entry both manually and by import of files.

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