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# Correction: Valuing marine plankton: a review of ecosystem services and disservices and an expert assessment of the potential of area-based protection

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KEYWORDS

plankton, ecosystem services, ecosystem disservices, expert assessment, economic value, semi-systematic review, marine policy, conservation approaches

# A Correction on

Valuing marine plankton: a review of ecosystem services and disservices and an expert assessment of the potential of area-based protection

By Wanek E, Esteban-Cantillo OJ and Bourgeois-Gironde S (2025) Front. Mar. Sci. 12:1607996.

In the published article, there was a reporting error regarding the carbon pricing method used by Berzaghi et al. (2025) to estimate the economic value of the biological carbon pump. We reported that a social cost of carbon estimate was used, however the actual measure was a carbon offset market price. Numerically, the results remain identical.

A correction has been made to the section **3 Results**, 3.1 Classification and economic values of marine plankton ES and EDS, 3.1.1 Ecosystem services, 3.1.1.2 Regulating services, Paragraph Number 4:

"Nowicki et al. (2022) assimilated satellite and *in situ* ocean biogeochemical observations to model the entire biological pump and quantify global and regional carbon export and sequestration. They used the Carbon, Acidification, Fisheries, Ecosystems (CAFE) model for their estimation of net primary production. The total amount of carbon exported via the biological pump is estimated at 10.2 Pg per year. The study authors do not provide monetary estimates, but if we use Cavan et al. (2024)'s approach and SCCO<sub>2</sub> range, we obtain the following results: with a conversion factor of 3.67 (EPA, 2024), the biological pump export is 37.43 Pg CO<sub>2</sub> and the total economic value USD 1.91 - 23.99 trillion per year. More recently, Berzaghi et al. (2025) also modelled global

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carbon export attributable to the biological pump, using the NEMO-PISCES-APECOSM model which explicitly includes fish and zooplankton vertical migration, and obtained an estimate of 2.81 Pg of carbon per year. They applied a  $\rm CO_2$  offsetting price of USD 90 and subsequently reported a yearly total value of USD 928 billion for this plankton ES".

The original version of this article has been updated.

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