frontiers | Frontiers in Marine Science

TYPE Correction
PUBLISHED 06 February 2023
DOI 10.3389/fmars.2023.1139310

OPEN ACCESS

EDITED AND REVIEWED BY
Carol Robinson,
University of East Anglia, United Kingdom

*CORRESPONDENCE
Mar Benavides
mar.benavides@ird.fr

SPECIALTY SECTION
This article was submitted to Marine Biogeochemistry, a section of the journal Frontiers in Marine Science

RECEIVED 06 January 2023
ACCEPTED 23 January 2023
PUBLISHED 06 February 2023

CITATION
Filella A, Riemann L, Van Wambeke F, Pulido-Villena E, Vogts A, Bonnet S, Grosso O, Diaz JM, Duhamel S and Benavides M (2023) Corrigendum: Contrasting roles of DOP as a source of phosphorus and energy for marine diazotrophs. *Front. Mar. Sci.* 10:1139310. doi: 10.3389/fmars.2023.1139310

Corrigendum: Contrasting roles of DOP as a source of phosphorus and energy for marine diazotrophs

Alba Filella[1,2], Lasse Riemann[3], France Van Wambeke[1], Elvira Pulido-Villena[1], Angela Vogts[4], Sophie Bonnet[1], Olivier Grosso[1], Julia M. Diaz[5], Solange Duhamel[1,6] and Mar Benavides[1,2]*

[1]Aix Marseille Univ, Universiteí de Toulon, CNRS, IRD, Marseille, France, [2]Turing Center for Living Systems, Aix-Marseille University, Marseille, France, [3]Marine Biological Section, Department of Biology, University of Copenhagen, Helsingør, Denmark, [4]Department of Biological Oceanography, Leibniz Institute for Baltic Sea Research, Rostock, Germany, [5]Scripps Institution of Oceanography, University of California San Diego, La Jolla, CA, United States, [6]Department of Molecular and Cellular Biology, The University of Arizona, Tucson, AZ, United States

KEYWORDS

nitrogen fixation, *Trichodesmium*, *Crocosphaera*, polyphosphate, phosphoanhydride phosphoester

A Corrigendum on

Contrasting roles of DOP as a source of phosphorus and energy for marine diazotrophs

by Filella A, Riemann L, Van Wambeke F, Pulido-Villena E, Vogts A, Bonnet S, Grosso O, Diaz JM, Duhamel S and Benavides M (2022) *Front. Mar. Sci.* 9:923765. doi: 10.3389/fmars.2022.923765

In the published article, there was an error in **Materials and Methods**, *Heterotrophic Bacteria Abundance and Production Rates*, Paragraph 6. The authors erroneously excluded some specifications of the flow cytometry measurements.

A correction has been made to the Materials and Methods, Heterotrophic Bacteria Abundance and Production Rates, Paragraph 6. This sentence previously stated:

"Heterotrophic bacteria (HB) were enumerated by flow cytometry. From all incubation treatments, 1.8 ml was subsampled from each triplicate 4.3 L bottle into cryotubes, fixed with paraformaldehyde (200 µl, 4% final concentration) for 5 min at room temperature, flash-frozen in liquid nitrogen, and stored at −80°C until analysis. Back in the lab, all samples were thawed, cells stained with 2 µL SYBR Green I at 1/10× of the stock solution (10,000×, Invitrogen, Life Technologies, Thermo Fisher Scientific, France) and measured using a CytoFLEX flow cytometer (Beckman Coulter) fitted with violet (405 nm), blue (488 nm), and red (638 nm) lasers. Trucount TM beads (BD Biosciences) were used to determine the volume analyzed, and fluoresbrite 2 µm latex beads (Polysciences, Inc., Warrington, PA, United States) were also added as internal size standards to all samples before analysis. Samples were run at low speed (10–30 µl min−1) and HB was identified in a plot of side scatter (SSC) versus green fluorescence (FL1)."

The corrected sentence appears below:

"Heterotrophic bacteria (HB) were enumerated by flow cytometry at the PRECYM Flow Cytometry Platform (https://precym.mio.osupytheas.fr/). From all incubation treatments, 1.8 ml was subsampled from each triplicate 4.3 L bottle into cryotubes, fixed with paraformaldehyde (200 µl, 4% final concentration) for 5 min at room temperature, flash-frozen in liquid nitrogen, and stored at −80°C until analysis. Back in the lab, all samples were thawed, cells stained with 2 µL SYBR Green I at 1/10× of the stock solution (10,000×, Thermo Fisher Scientific, France) and measured using a CytoFLEX flow cytometer (Beckman Coulter, France) fitted with violet (405 nm), blue (488 nm), and red (638 nm) lasers. Trucount TM beads (BD Biosciences, France) were used to determine the volume analyzed, and fluoresbrite 2 µm latex beads (Polysciences, Inc., Warrington, PA, United States) were also added as internal size standards to all samples before analysis. Samples were run at low speed (10–30 µl min−1) and HB was identified in a plot of side scatter (SSC) versus green fluorescence."

In the published article, there was an error in the **Acknowledgement** section. The authors erroneously excluded the acknowledgement of the scientific platform utilized to perform scuh analysis. A correction has been made to the Acknowledgement section.

A correction has been made to Acknowledgements.This sentence previously stated:

"The authors would like to thank the captain and crew of *R/V L'Atalante*. We are indebted to S. Hallstrøm, L. W. von Friesen, and M. Bittner for their assistance with molecular analyses, and to S. Helias-Nunige for assistance with inorganic and organic nutrient analyses. Annett Grüttmüller is acknowledged for NanoSIMS routine operation."

The corrected sentence appears below:

"The authors would like to thank the captain and crew of *R/V L'Atalante*. We are indebted to S. Hallstrøm, L. W. von Friesen, and M. Bittner for their assistance with molecular analyses, and to S. Helias-Nunige for assistance with inorganic and organic nutrient analyses. Annett Grüttmüller is acknowledged for NanoSIMS routine operation. The authors are indebted to A. Barani for training and analyses of flow cytometry bacteria counts."

In the published article we forgot to add some of the grants used for this work in the section Funding. We would be grateful if the following sentence could be added at the end of the Funding section:

"This work was also supported by the National Science Foundation under the grants 1737083, 2001212 (SD), 1736967, 1948042 (JMD)"

Applying what mentioned above, the corrected FUNDING paragraph appears below:

"This research was supported by the NOTION BNP Paribas Foundation for Climate and Biodiversity (MB and LR) the TONGA project (Shallow hydroThermal sOurces of trace elemeNts: potential impacts on biological productivity and the bioloGicAl carbon pump; TONGA cruise DOI: 10.17600/18000884) funded by the Agence Nationale de la Recherche (grant TONGA ANR-18- CE01-0016 and grant CINNAMON ANR-17-CE2-0014-01), the LEFE- CyBER program (CNRS-INSU), the A-Midex foundation, the Institut de Recherche pour le Développement (IRD). The MIMS equipment used in this study was obtained with European FEDER Funds. The NanoSIMS at the Leibnitz- Institute for Baltic Sea research in Warnemuende (IOW) was funded by the German Federal Ministry of Education and Research (BMBF), grant identifier 03F0626A. This work was also supported by the National Science Foundation under the grants 1737083, 2001212 (SD), 1736967, 1948042 (JMD)."

The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

Publisher's note