



Corrigendum: Deep-Sea Mining With No Net Loss of Biodiversity—An Impossible Aim

Holly J. Niner^{1*}, Jeff A. Ardron^{2,3}, Elva G. Escobar⁴, Matthew Gianni⁵, Aline Jaeckel⁶, Daniel O. B. Jones², Lisa A. Levin⁷, Craig R. Smith⁸, Torsten Thiele⁹, Phillip J. Turner¹⁰, Cindy L. Van Dover¹⁰, Les Watling¹¹ and Kristina M. Gjerde¹²

¹ Department of Engineering, University College London, Adelaide, SA, Australia, ² National Oceanography Centre, Southampton, United Kingdom, ³ Ocean and Earth Science, National Oceanography Centre Southampton, University of Southampton, Southampton, United Kingdom, ⁴ Instituto de Ciencias del Mar y Limnología-CU, Biodiversidad y Macroecología, Universidad Nacional Autónoma de México, Mexico City, Mexico, ⁵ Deep-Sea Conservation Coalition, Amsterdam, Netherlands, ⁶ Macquarie Law School and Macquarie Marine Research Centre, Macquarie University, Sydney, NSW, Australia, ⁷ Center for Marine Biodiversity and Conservation and Integrative Oceanography Division, Scripps Institution of Oceanography, University of California, San Diego, La Jolla, CA, United States, ⁸ Department of Oceanography, University of Hawaii at Mānoa, Honolulu, HI, United States, ⁹ Ocean Governance, Institute for Advanced Sustainability Studies, Potsdam, Germany, ¹⁰ Division of Marine Science and Conservation, Nicholas School of the Environment, Duke University, Beaufort, NC, United States, ¹¹ Department of Biology, University of Hawaii at Mānoa, Honolulu, HI, United States, ¹² IUCN Marine and Polar Programme, Cambridge, MA, United States

OPEN ACCESS

Edited and reviewed by:

Frontiers in Marine Science Editorial Office,
Frontiers Media SA, Switzerland

*Correspondence:

Holly J. Niner
holly.niner.13@ucl.ac.uk
h.j.niner@gmail.com

Specialty section:

This article was submitted to
Deep-Sea Environments and Ecology,
a section of the journal
Frontiers in Marine Science

Received: 29 April 2018

Accepted: 17 May 2018

Published: 13 June 2018

Citation:

Niner HJ, Ardron JA, Escobar EG, Gianni M, Jaeckel A, Jones DOB, Levin LA, Smith CR, Thiele T, Turner PJ, Van Dover CL, Watling L and Gjerde KM (2018) Corrigendum: Deep-Sea Mining With No Net Loss of Biodiversity—An Impossible Aim. *Front. Mar. Sci.* 5:195. doi: 10.3389/fmars.2018.00195

Keywords: no net loss, biodiversity offsetting, compensation, mitigation hierarchy, deep-sea mining, Environmental Impact Assessment (EIA)

A corrigendum on

Deep-Sea Mining With No Net Loss of Biodiversity—An Impossible Aim

by Niner, H. J., Ardron, J. A., Escobar, E. G., Gianni, M., Jaeckel, A., Jones, D. O. B., et al. (2018). *Front. Mar. Sci.* 5:53. doi: 10.3389/fmars.2018.00053

The terms “offset” and “reef balls” appear in the reference given in our paper, “International Marine Mitigation Bank” (IMMB, 2017), but our referencing is not precise. The following clarifications better direct readers to discussions held in relation to compensation and offsetting for deep-sea mining.

- Managing impacts on deep-sea biodiversity, paragraph three: “We also consider the recent suggestion that biodiversity offsetting could be employed in the context of deep-seabed mining (ISA, 2016).”
- Offset misuse, paragraph two: “For example, it has been suggested that **damage** in the deep sea from mining (**which will inevitably involve biodiversity loss**) might be compensated or offset through an “International Marine Mitigation Bank” (ECO, 2016; ISA, 2016; Fish Reef Project, 2017), which deploys “reef balls”—concrete substrata—to promote coral-reef habitat and biodiversity in shallow-water ecosystems.”

The authors state that these clarifications do not change the scientific conclusions of the article in any way.

The original article has been updated.

REFERENCES

- ISA (2016). *ISA 2016 Speech: Observer Fish Reef Project, Agenda Item 8 Annual Report of the Secretary-General*. Available online at: <https://www.isa.org/im/document/statement-fish-reef-project> (Accessed March 15, 2018).
- ECO (2016). *Offsetting the Effects of Deep Sea Mining Activities*. *Environment Coastal & Offshore*, 50–53. Available online at: <https://www.ecomagazine.com/featured-stories/offsetting-the-effects-of-deep-sea-mining-activities> (Accessed March 15, 2018).
- Fish Reef Project (2017). *ISA 2017 Speech*. Available online at: <http://www.fishreef.org/2017/08/frp-attends-2017-United-Nations-Seabed-Authority-Session/> (Accessed March 15, 2018).

Conflict of Interest Statement: CV and LL received research support from Nautilus Minerals; CS received research support from UK Seabed Resources Development Limited.

The remaining authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2018 Niner, Ardron, Escobar, Gianni, Jaeckel, Jones, Levin, Smith, Thiele, Turner, Van Dover, Watling and Gjerde. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.