



Corrigendum: ILTER – The International Long-Term Ecological Research Network as a Platform for Global Coastal and Ocean Observation

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A Corrigendum on

ILTER – The International Long-Term Ecological Research Network as a Platform for Global Coastal and Ocean Observation

by Muelbert, J. H., Nidzieko, N. J., Acosta, A. T. R., Beaulieu, S. E., Bernardino, A. F., Boikova, E., et al. (2019). *Front. Mar. Sci.* 6:527. doi: 10.3389/fmars.2019.00527

In the original article, there was a mistake in the legend for **Figure 1** as published. After publication, it was brought to the authors’ attention that DEIMS-SDR also included not-ILTER sites (Wohner et al., 2019) and the so called LTER “parent sites,” at the same hierarchical level of the research sites they are made of, generating some duplicates. While reviewing the site list, it was found that one site was duplicated and seven LTER sites were not included. Therefore, the published map included seven not-ILTER sites, 10 parent sites, and one duplicated site, all of which have now been removed. The correct legend appears below.

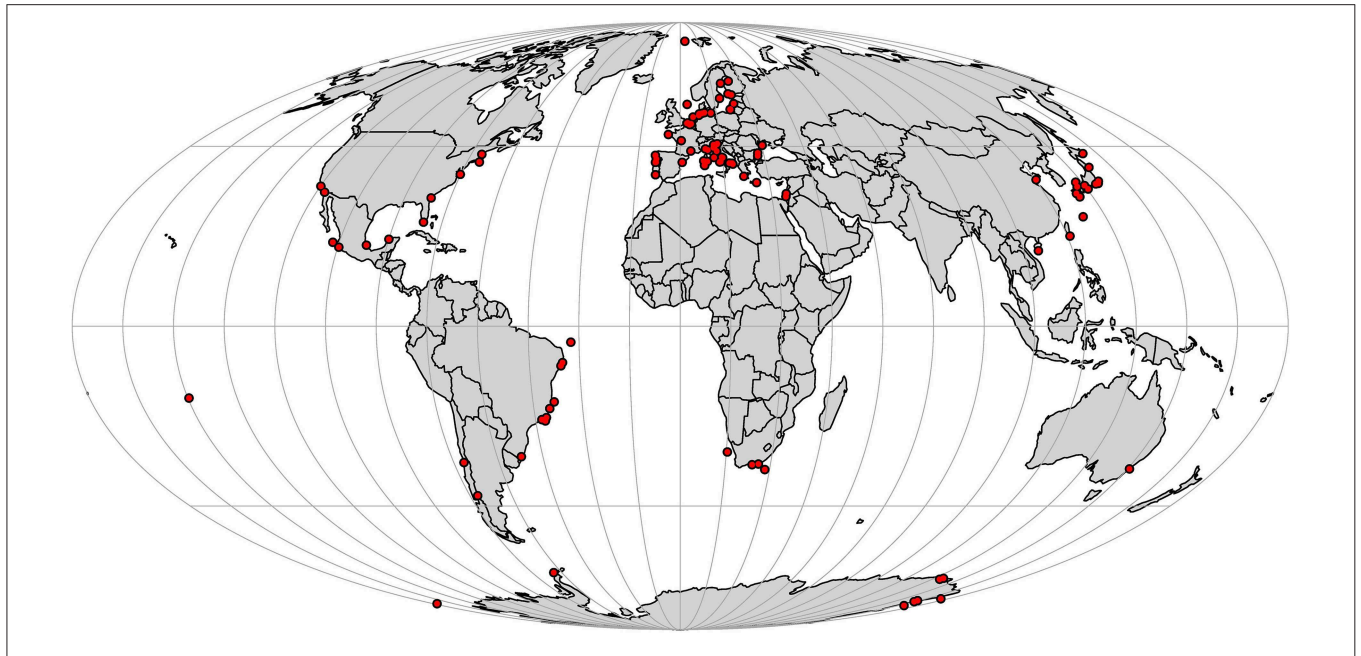


Figure 1 | Worldwide distribution of coastal and marine International Long-Term Ecological Research (ILTER) sites. Based on DEIMS status as of 2nd September 2019.

TABLE 1 | The strengths, weakness, opportunities and threats presented by the ILTER-CMS.

Strengths	Weakness
<ul style="list-style-type: none"> • Multi- and interdisciplinary • Links with a wide range of global/regional processes and initiatives • Platform for discussion among experts on oceanographical and ecological themes • Multi-institutional cooperation • Metadata organized and updated in DEIMS-SDR • Socio-ecological aspects developed in the ILTER mission • ILTER-CMS monitor Physical, Biochemical, and Biological/Ecological EOVs • Potential for large syntheses and detection of long-term trends across sites, spatial and temporal scales • Potential for developing and testing concepts and theoretical frameworks • A consolidated data policy and information availability system • Quick response to methodological/technological advances, standardization and implementation of these technologies on a large spatial scale and link to existing time series and spatial data 	<ul style="list-style-type: none"> • ILTER is mostly terrestrial, overarching strategy and conceptual framework are broad and not specific for coastal and marine environments. • Variables to be measured, methodologies, technological development and sampling schemes are not homogeneous among sites • The socio-ecological aspects are not yet fully developed • Harmonization of data and metadata for coastal and marine environments is still incomplete • The geographic location of time series has notable gaps • The standardization of variables gathered has not been accomplished, and EOVs or EOVs coverage is inconsistent • Intercalibration of approaches and methodologies is lacking • The data management is relatively poor at several sites • Some data linked to ecological research activities not immediately available
Opportunities	Threats
<ul style="list-style-type: none"> • Optimal sites for experiments on observation and pilot integrated biological observatories • Promote the use of new technologies for ocean observation and compare the information that technologies make available • Merging frameworks from different global research and monitoring initiatives, producing guidelines for future site-based long-term research and monitoring marine and coastal ecosystems • Support the use of costly infrastructure, fostering cross-initiative collaborative research • Monitoring EOVs at a global scale at 115 discrete sites • Improvement of models and predictions of possible future developments • Platform for citizen science • Continuous training of new generations of scientists, ensuring the transfer of knowledge 	<ul style="list-style-type: none"> • Missing link with society, hampering the identification of questions with societal relevance • Reduction in focus on <i>in-situ</i> sampling as a consequence of linking with more technological or model-centric networks • Inadequate training of new generation of researchers with relevant skills set (e.g., taxonomy, data science, database management), able to recognize the relevance of these kinds of activities and maintain LTER in the future • Reduction of ILTER activities at some sites leading to temporal and spatial gaps.

Further, in the original article, there was a mistake in the legend for **Table S1** as published. The table included seven not-ILTER sites, 10 parent sites, one duplicated site and excluded seven LTER sites. The correct legend appears below.

“**Table S1.** ILTER-CMS site name, location, year of establishment and habitat type. Site name, geographic coordinates and establishment obtained from DEIMS (<https://deims.org/site/list>) on 2nd September 2019. Habitat type

was obtained with a survey conducted with ILTER-CMS site managers for this study. Negative longitudes refer to West, negative latitudes to South.”

Additionally, there was a mistake in **Figure 1** as published. Locations on the map included the seven not-ILTER sites, 10 parent sites, and one duplicated site and excluded the seven LTER sites. The corrected **Figure 1** appears above.

There was also a mistake in **Table 1** as published. The inclusion of not-LTER and parent sites at the same hierarchical level on DEIMS-SDR, and the repetition of one site lead the authors to list “130” sites in the ILTER-CMS. Added to the seven LTER sites not listed, the correct number of ILTER-CMS sites is “115.” The corrected **Table 1** appears above.

The inclusion of not-LTER sites and parent sites on DEIMS-SDR and the duplicated site lead the authors to inform the existence of “70 coastal and 60 marine sites” in the ILTER. After these corrections and the inclusion of the seven missing LTER sites, the correct number is “63 coastal and 52 marine sites” in the ILTER.

A correction has been made to the section The Coastal and Marine ILTER Sites (ILTER-CMS), paragraph one:

“There are 63 coastal and 52 marine sites in the ILTER (**Figure 1** and **Table S1**). Based on classifications in the ILTER’s DEIMS-SDR, coastal sites include sand dunes and beaches, lagoons, estuaries, river deltas, fjords, salt marshes and mangroves, while marine sites are located on continental shelves and oceanic islands (Figure 2). Nearly half of the CMS include data records that precede the formal establishment of the ILTER (Figure 3). For example, the “Dutch Wadden Sea Area” in the Netherlands has records dating to 1872. Observations began in the Western Gulf of Finland in 1902; the Mar Piccolo of Taranto, Italy in 1914; and Shirahama, Japan in 1922. The length of

these observations enhances the opportunities for ILTER-CMS to contribute to documenting global change.”

The inclusion of not-LTER sites on DEIMS-SDR lead the authors to inform the existence of “130” sites in the ILTER, when the correct number of ILTER-CMS sites is “115.”

A correction has been made to The Coastal and Marine ILTER Sites (ILTER-CMS), paragraph seven:

“Long-term ecological time series are crucial for setting realistic baselines and limits in the classification systems used for assessing ecosystem environmental status. The 115 globally-distributed coastal and marine sites of the ILTER provide an exceptional observation platform for the GOOS-defined EOVs and invaluable information for several regional and global programs. This integration could benefit the European Water Framework Directive (WFD) and the EU Marine Strategy Framework Directive (MSFD), the accomplishment of the Aichi Targets of the Convention for Biological Diversity (CBD), the Intergovernmental Panel for Climate Change (IPCC), the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and the United Nations World Ocean Assessment. Information on coastal and marine ecosystems is urgently required to address the UN Sustainable Development Goal (SDG) 14.”

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

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fmars.2019.00819/full#supplementary-material>

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