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## Corrigendum

## Corrigendum to “Isotopic evidence for complex biogeochemical cycling of Cd in the eastern tropical South Pacific” [Earth Planet. Sci. Lett. 512 (2019) 134–146]

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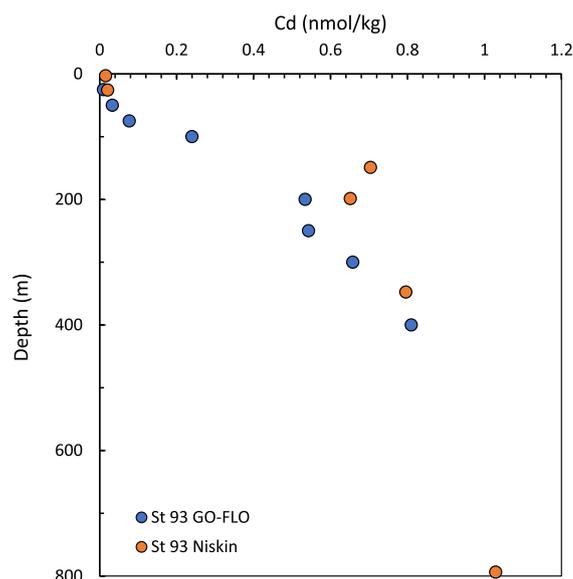
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The authors regret an error in the published paper regarding the sampling procedure. The second paragraph of section 2.1 should read:

“All samples were collected directly from Niskin bottles into 10 L polyethylene cubitainers. Samples were then filtered within 2 hours through 0.45  $\mu\text{m}$  Millipore nitrocellulose acetate filters into acid-cleaned polyethylene cubitainers/bottles and acidified to pH  $\sim 2$  using distilled 12 M HCl in a general laboratory on board. All sample bottles were double-bagged and shipped to the home laboratory.”

A number of observations demonstrate that our published Cd concentrations and isotope compositions, as well as the related discussion and interpretation, are not significantly affected by Cd contamination from the vessel, the sampling system or the initial sample handling. Firstly, the Cd concentration and isotope data for two profiles of our study show excellent agreement with results obtained for profiles from nearby stations of the GEOTRACES P16 section, which were collected with Teflon lined GO-FLO bottles and a trace metal clean sampling system (see detailed discussion in the last paragraph of section 3.2 in the original article). The most significant differences between the datasets are observed for shallow depths. In this case, however, our samples show lower Cd concentrations than samples from the nearby GEOTRACES P16 stations (Figure S2 in the original article). Secondly, Cd concentrations at St. 93 of cruise M77/4 in this study show good agreement between samples collected with Niskin bottles and those collected



**Fig. 1.** Intercomparison of Cd concentrations from samples collected using trace metal clean GO-FLO bottles (blue; unpublished data from Peter Croot and Kathrin Wuttig) and those using Niskin bottles (orange) at station 93 from cruise M77/4, showing generally good agreement.

with GO-FLO bottles (unpublished data of Peter Croot and Kathrin Wuttig) deployed on a Kevlar line from the side of the ship (Wuttig et al., 2013) (Fig. 1). The collection and analysis procedures for these GO-FLO samples provided by Peter Croot and Kathrin Wuttig are briefly described here. Upon recovery, Teflon coated GO-FLO

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bottles (General Oceanics) with Teflon stop cocks were immediately brought into an over-pressurized ISO class 5 clean container. Seawater samples were filtered in-line through 0.2  $\mu\text{m}$  filter cartridges (Sartorius Sartobran) under slight  $\text{N}_2$  overpressure into acid cleaned 1 L LDPE bottles (Nalgene) and acidified with sub-boiled quartz-distilled hydrochloric acid to pH 1.7. Cadmium concentrations of the GO-FLO samples were analyzed in a trace-metal clean laboratory at GEOMAR by graphite furnace atomic absorption (ETAAS, Perkin-Elmer Model 4100ZL) after Klinkhammer (1980). The handling of the samples collected with Niskin and GO-FLO samples on board therefore differed significantly, which includes using different rosette systems that were deployed at different times, the types and pore sizes of filters used for filtration and the bottles into which samples were filtered. Yet Cd concentrations agree well, particularly at shallow depths where Cd concentrations are at pmol/kg levels. A difference of  $\sim 0.1$  nmol/kg is observed between the two datasets at 200 m water depth, whereby the sample collected with the Niskin bottle shows a higher Cd concentration. This difference in Cd concentrations is within the natural variability of the Peruvian upwelling system and is also present between our Niskin bottle dataset and that of the nearby stations from

the GEOTRACES P16 transect (Niskin samples in this case showing lower Cd concentrations; Figure S2 in the original article). This essentially excludes any significant artifacts originating from contamination of our samples.

The authors apologize for any inconvenience caused.

#### Acknowledgements

We thank Peter Croot and Kathrin Wuttig for bringing this error to our attention, and for generously sharing their unpublished Cd concentration data obtained from the same expedition under trace-metal clean conditions as well as their ship- and shore-based methodology.

#### References

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