

## CORA4.3: A global delayed time mode validated in-situ dataset

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CORA (Coriolis Dataset for ReAnalysis) is a delayed mode validated global temperature and salinity dataset provided by the Coriolis data center. This dataset provides delayed mode validated measurements from 1950 to 2015 and is used for the model reanalysis provided by the copernicus marine service (<http://marine.copernicus.eu/>).

Various new datasets have been added to CORA to enhance the ocean data coverage in the 4.2 version. Among them, the French SHOM dataset (Service Oceanographique de la Marine) have provided more than 3 million original profiles on the period 1950-2009.

The delayed mode data validation is based on two sets of tests. First, automatic tests set to detect and to flag obvious erroneous measurements. A second set of test is based on the comparison of the measurements with a minimum and a maximum temperature and salinity reference field. A warning is associated to each suspicious profile which is then manually checked by an oceanographer.

The next objective of CORA is to produce a copernicus CMEMS dataset by merging the best features of the CORA dataset and EN.4 datasets ([www.metoffice.gov.uk/](http://www.metoffice.gov.uk/))

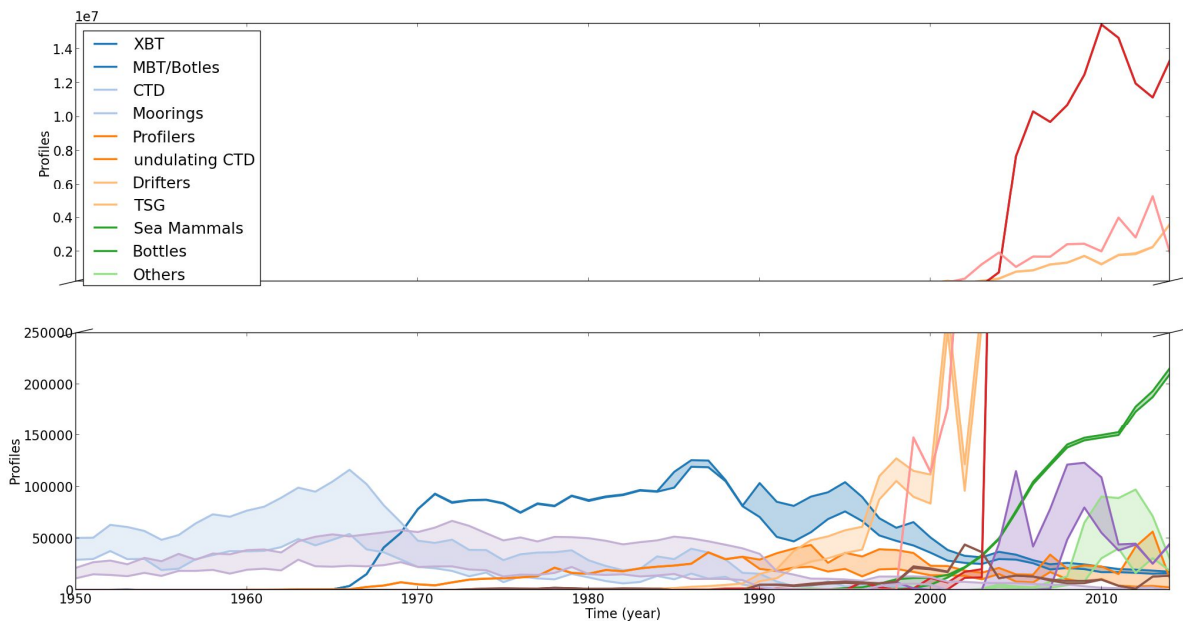


Figure 1: Yearly number of CORA profiles for various instrument types. For each instrument type, the lower line refers to CORA4.2 (released on April 2016) dataset and the upper line refers to the estimated number of profiles for the CORA4.3 dataset (to be released on April 2017).