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Biogeography and biomass of North Atlantic jellyfish

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We discuss recent information on jellyfish (i.e. Cnidaria and Ctenophora) abundance and distribution collected in spring 2013 across the North Atlantic, from Norway to west Greenland, during the Eurobasin 2013_GO Sars cruise. Quantitative and qualitative data were collected between the surface and 1000m depth using different types of gears, i.e. a standard MOCNESS (180 µm mesh size), a stramine soft-'Jellynet' (670 µm mesh) and two different types of trawls (0.3-3 cm nominal mesh).
In two of the four main sub-basins visited jellyfish, in particular the schyphomedusae *Periphylla periphilla* and *Atolla* spp., represented the bulk of zooplankton biomass (WW). Our results suggest that in terms of C content, the biomass of gelatinous zooplankton in some areas is higher than previously reported.
Distinct jellyfish communities were found in the Irminger/Labrador Seas and Norwegian/Icelandic regions, influenced by differences in hydrology and bathymetry. Species diversity tended to be higher in the mesopelagic (200–1000m depth) than in the epipelagic (0-200m depth) layer. In the Irminger and Labrador Seas jellyfish were evenly distributed through the water column or mainly concentrated in epipelagic waters, while in the eastern basin they were mainly found in the mesopelagic layer.
The comparison of the data collected with different sampling methodologies showed that, with the exception of a few dominant species (e.g. *Aglantha digitale, Nanomia* sp*., Beroe* spp.), the information on jellyfish diversity differs significantly depending on the sampling gear utilised.

Keywords: Gelatinous zooplankton, jellyfish, cnidaria, comb jellies, ctenophora, biogeography, vertical distribution, Carbon content, basin scale, North Atlantic, plankton net, DNA barcoding, plankton surveys

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