

**Abstract**

Eutrophication is a major environmental concern on the North West European Shelves (NWES). We performed interannual hindcast experiments using GETM-ERSEM, a high resolution coupled circulation-biogeochemical model forced by an atmospheric reanalysis, to better understand the impact of riverine discharges on the NWES ecosystem. We plan to extend the multi-decadal experiment (1990 – 2018) that we performed by forcing the GETM-ERSEM model using climate projections based on EURO-CORDEX data.