

# **Nutrient transport and transformation in macrotidal estuaries of the French Atlantic coast: a modelling approach using C-GEM**

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Due to the limited space in the main context, the results of small estuaries (the Somme and Vilaine) are presented in the supplement.

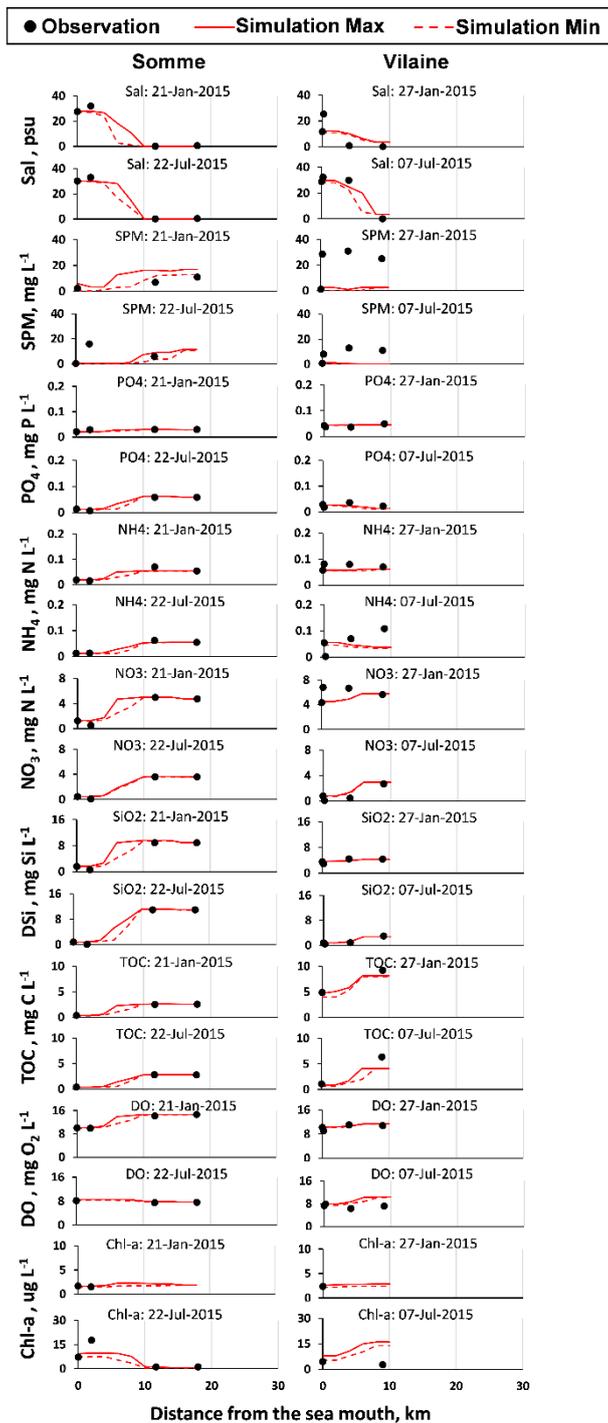


Figure S- 1 Salinity (Sal), suspended particulate matter (SPM) and nutrients (PO<sub>4</sub>, NH<sub>4</sub>, NO<sub>3</sub>, DSi, TOC), dissolved oxygen (DO), chlorophyll a (Chl-a) concentrations variations along the estuaries (the Somme and Vilaine) for two selected dates (one in winter and the other one in summer). Note the different scales for the Chl-a for the estuaries.

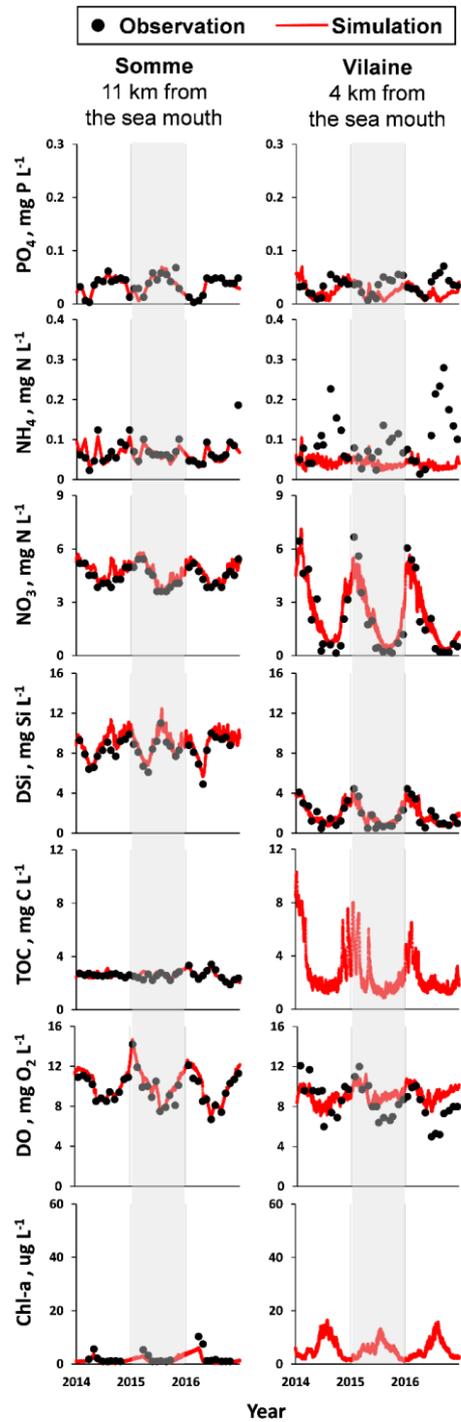


Figure S- 2 Temporal variations for phosphate (PO<sub>4</sub>), ammonium (NH<sub>4</sub>), nitrate (NO<sub>3</sub>), dissolved silica (DSi), total organic carbon (TOC), dissolved oxygen (DO), and chlorophyll a (Chl-a) concentrations from 2014 to 2016 for the Somme and Vilaine estuaries at the sampling stations located about 1/2 the length of the estuary to the sea mouth. Gray columns covered the year of calibration (2015).