

Figures (only supplementary material)



a)



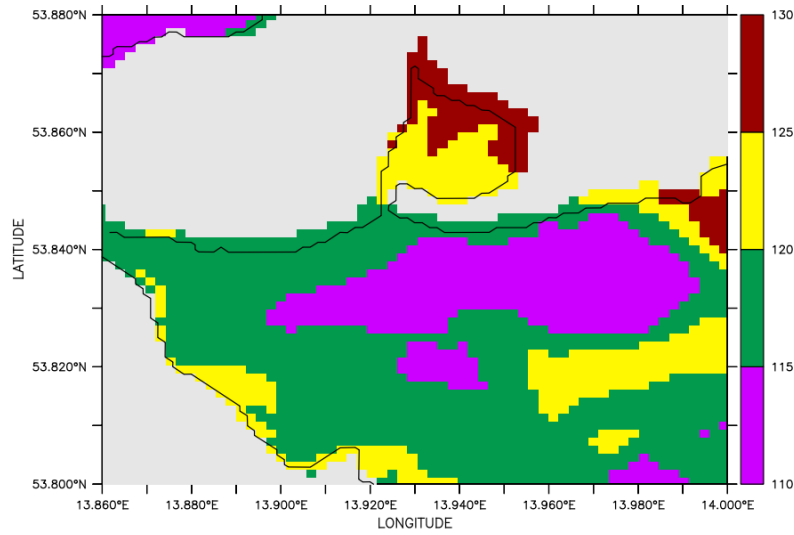
b)



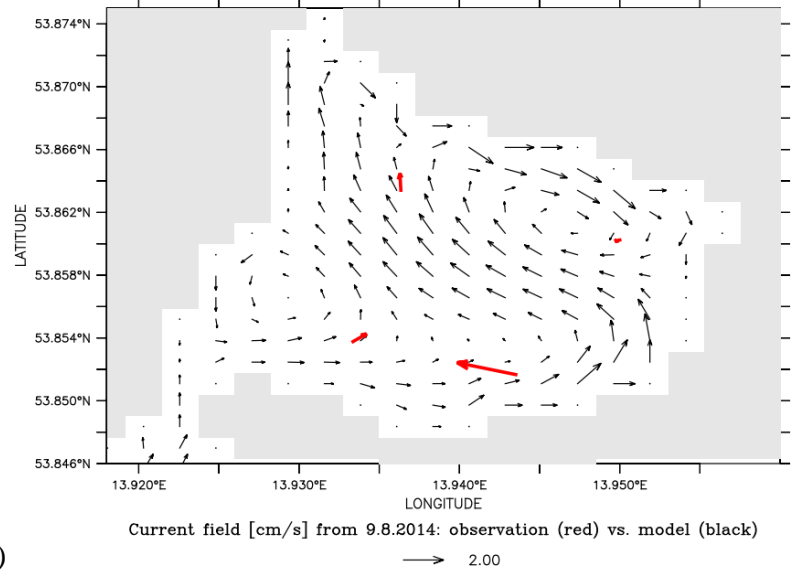
c)

Figure S1: a) Total view of the pilot farm in Lake Usedom; b) collector net at 29.8.2012 (after 3 months of use) with young *Dreissena polymorpha* (Pallas, 1771); c) collector net at 13.9.2013 (after 16 months of use): mussels are dead in part and covered with epizoic organisms like *Plumatella fungosa* (Pallas, 1768) and *Cordylophora caspia* (Pallas, 1771)

Spatial effects of zebra mussel farming in a Baltic lagoon



a) Modeled Chlorophyll a [mg/m³]: 25.09.2013



b) Current field [cm/s] from 9.8.2014: observation (red) vs. model (black)
→ 2.00
b) Figure S2: a) modelled concentration of Surface Chlorophyll a [mg m⁻³] at 25.9.2013; b) observed (red arrows) and modelled currents (cm s⁻¹) from 9.8.2014

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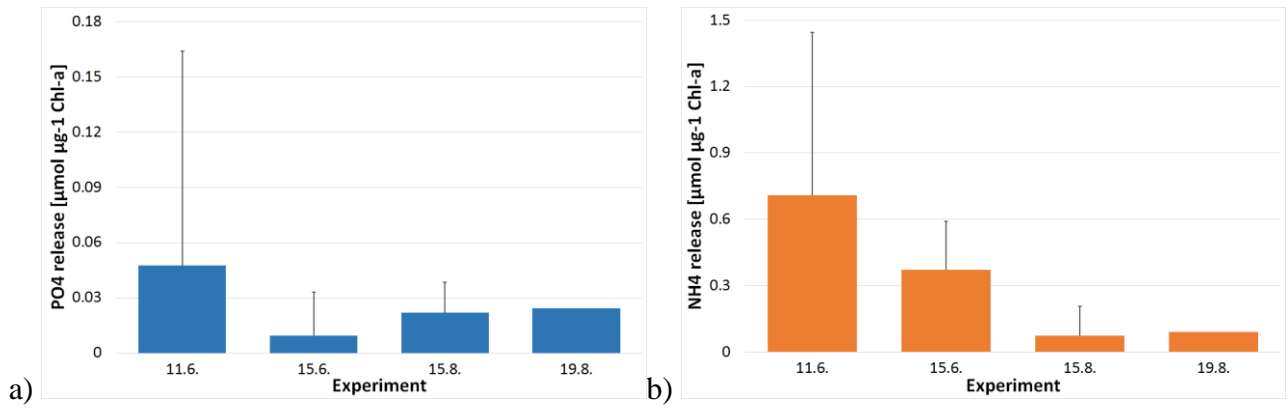


Figure S3: Observed release rates of a) Phosphate and b) Ammonium per μg Chlorophyll removed by *Dreissena polymorpha* in a series of filtration experiments in 2016

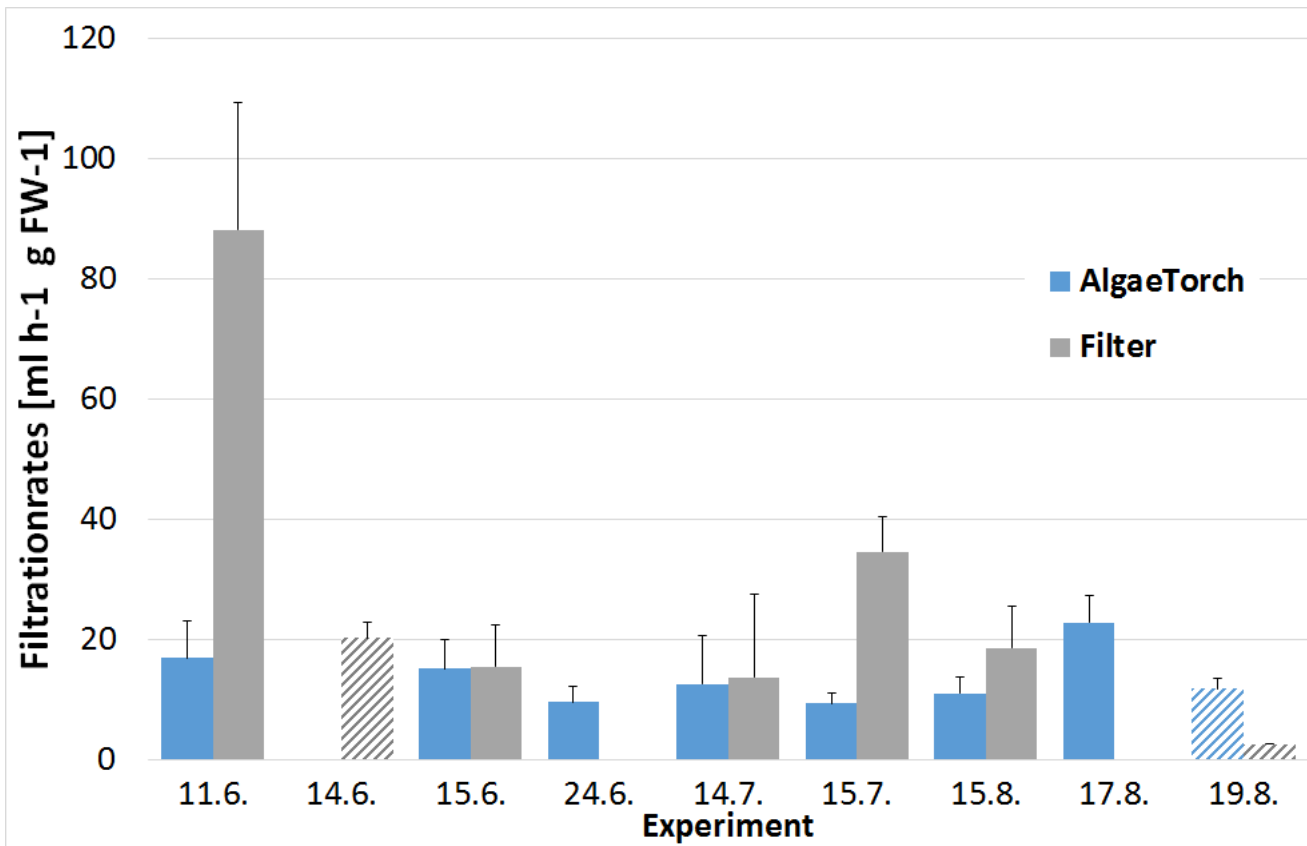


Figure S4: Filtration rates [ml h⁻¹ g WW⁻¹] of *Dreissena polymorpha* in a series of filtration experiments using an aquarium (filled bars) or a tube system (shaded). Rates were calculated based on the reduction of phytoplankton, measured either with a fluorometer (AlgaeTorch; blue) or from filtered water samples (grey)

Spatial effects of zebra mussel farming in a Baltic lagoon

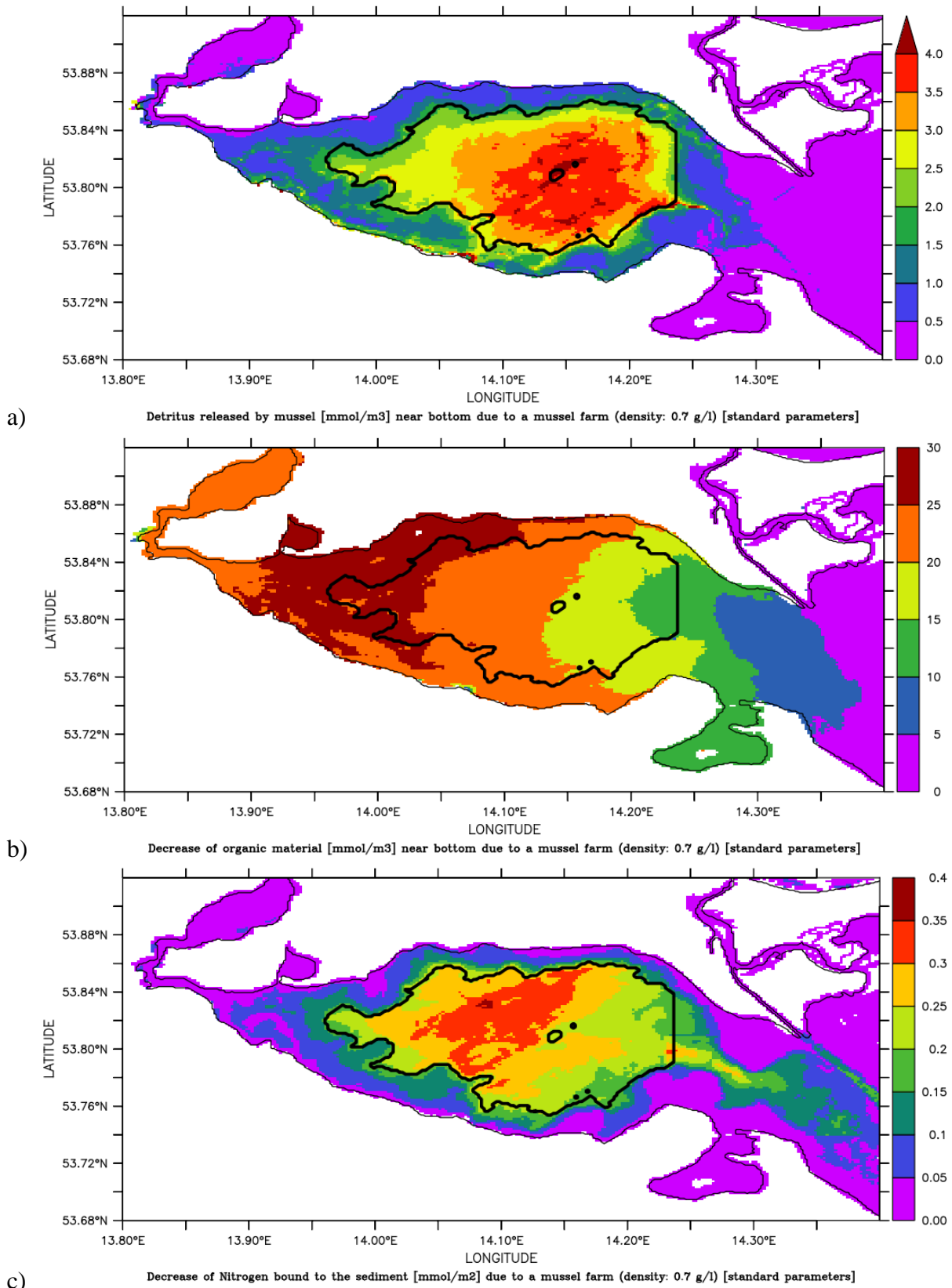


Figure S5: While the concentration of fast-sinking detritus released by the mussels (a) increases (mainly near the mussel farm), the total amount of organic material decreases near the bottom (b). This leads also to a decrease of organic material bound in the sediment (c).