

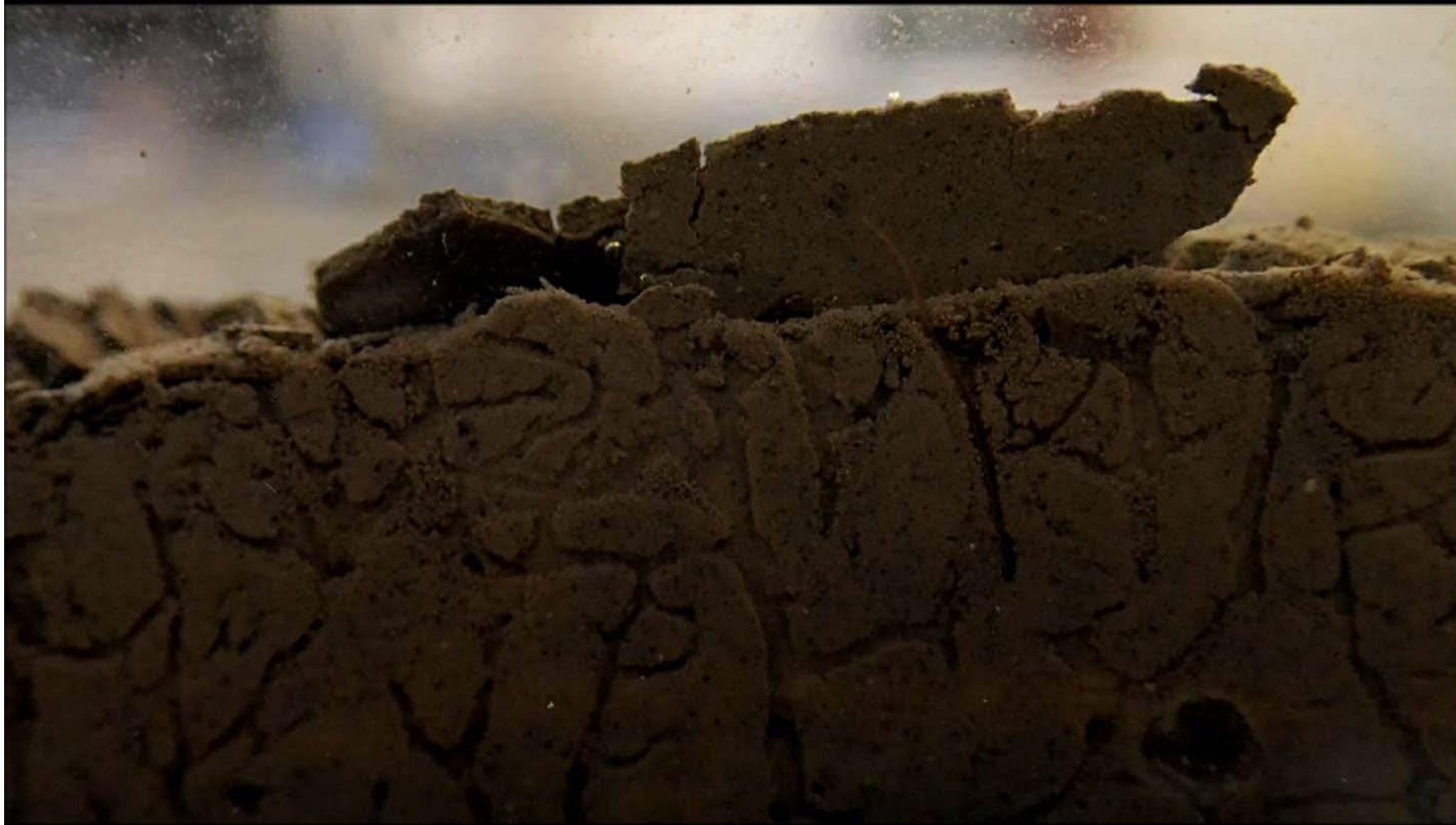


NCK Theme day Sediment sorting by oligochaetes

11 January 2018
Wageningen Marine Research
Marin van Regteren



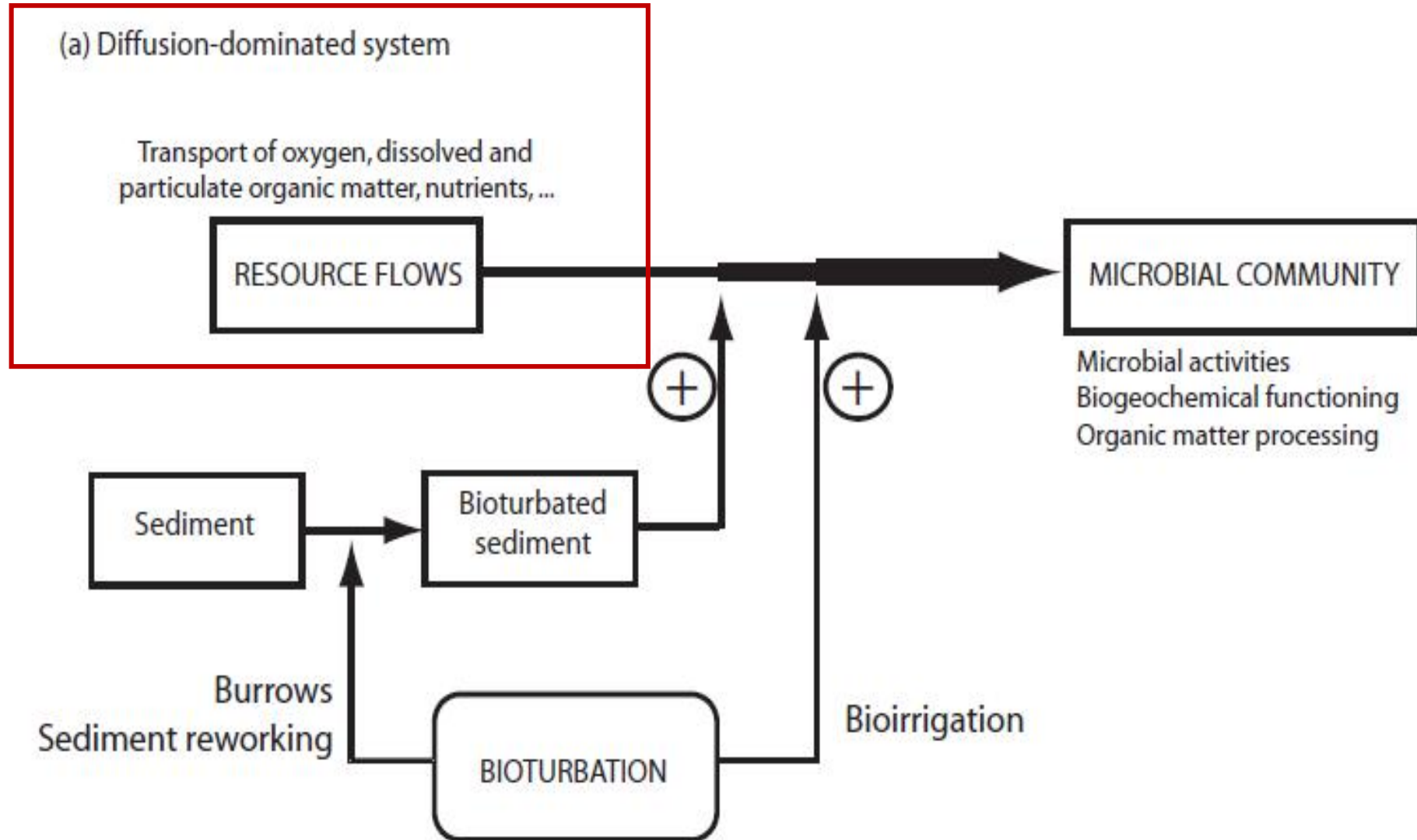




Oligochaetes

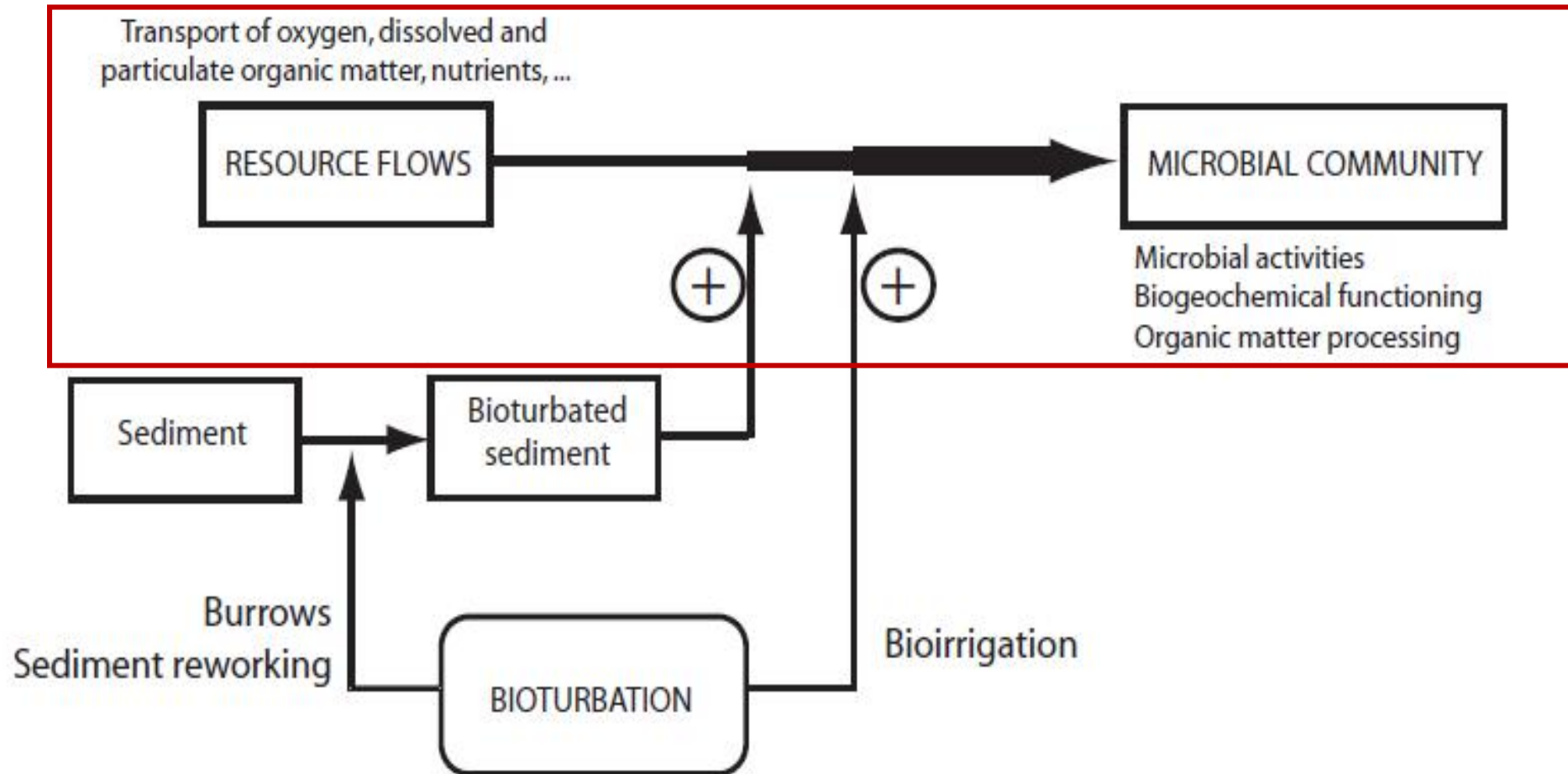
- Pelletize
- Create burrows

Bioturbation in fine-grained habitat



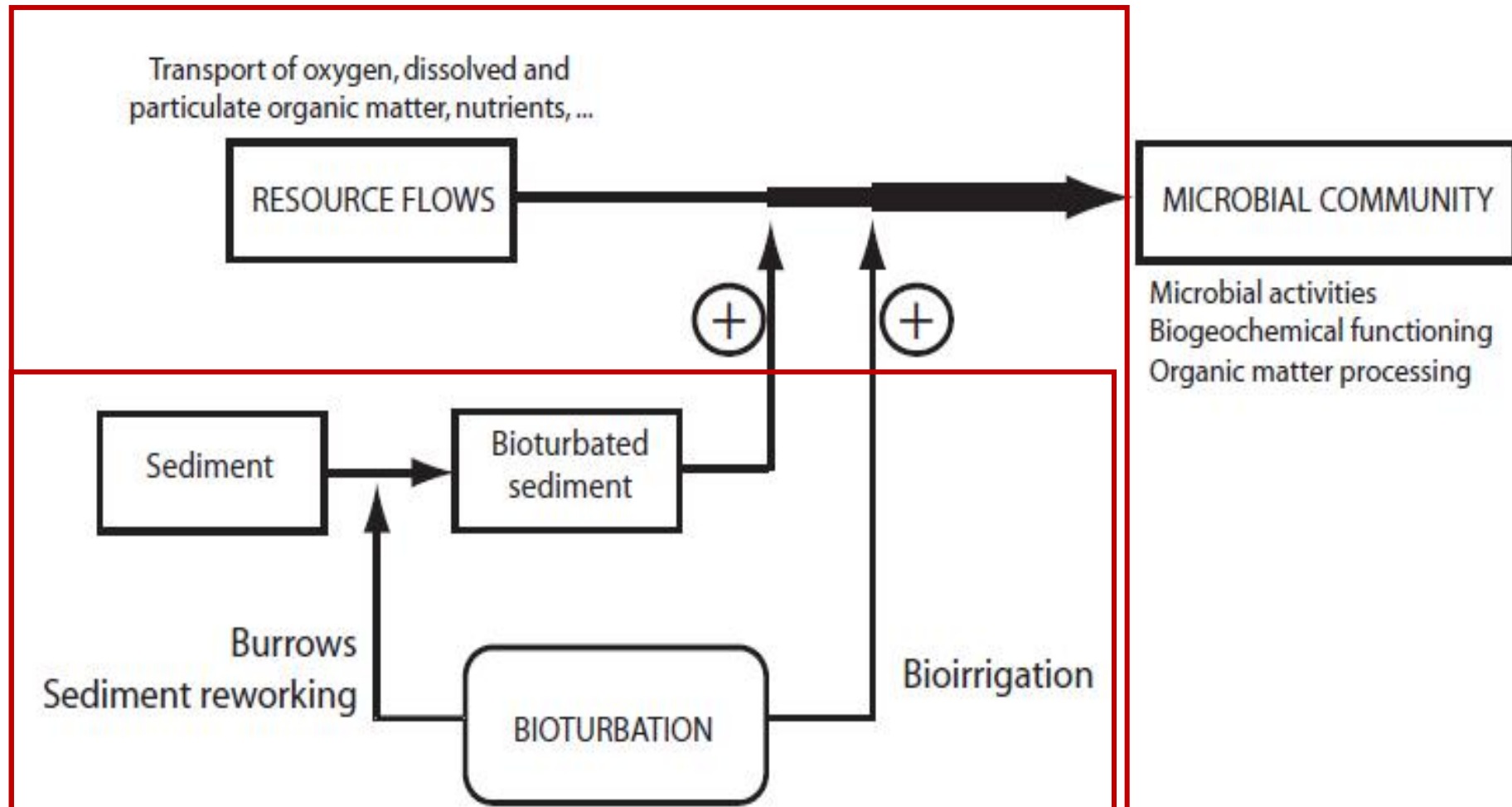
Bioturbation in fine-grained habitat

(a) Diffusion-dominated system

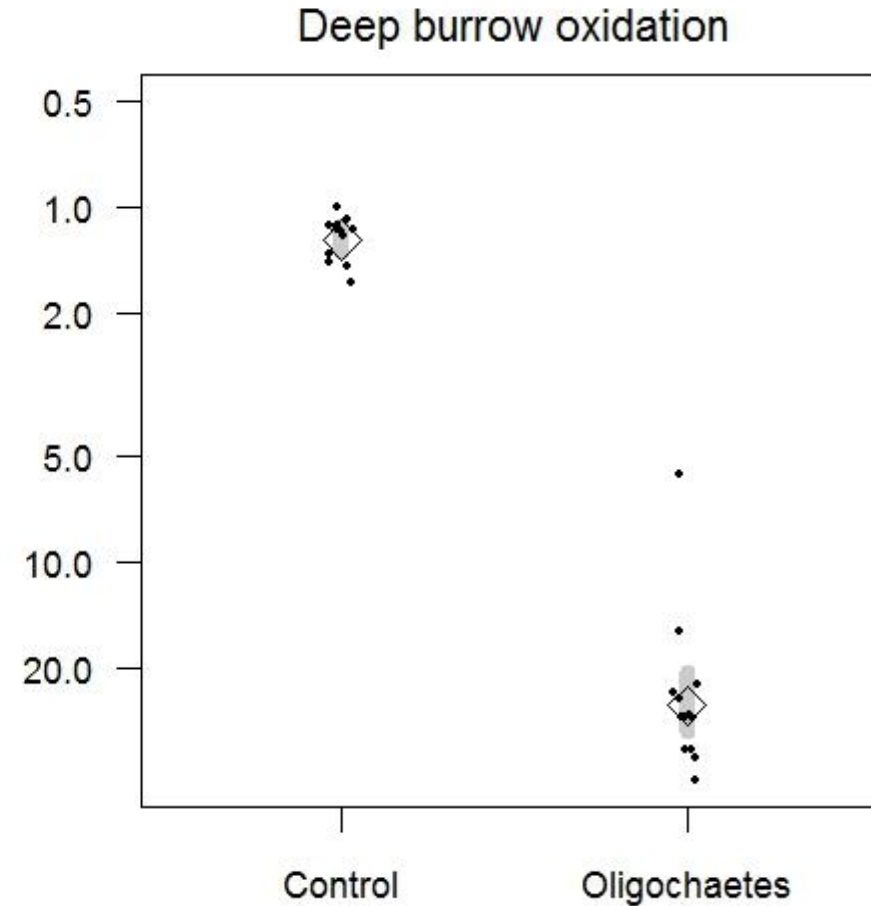
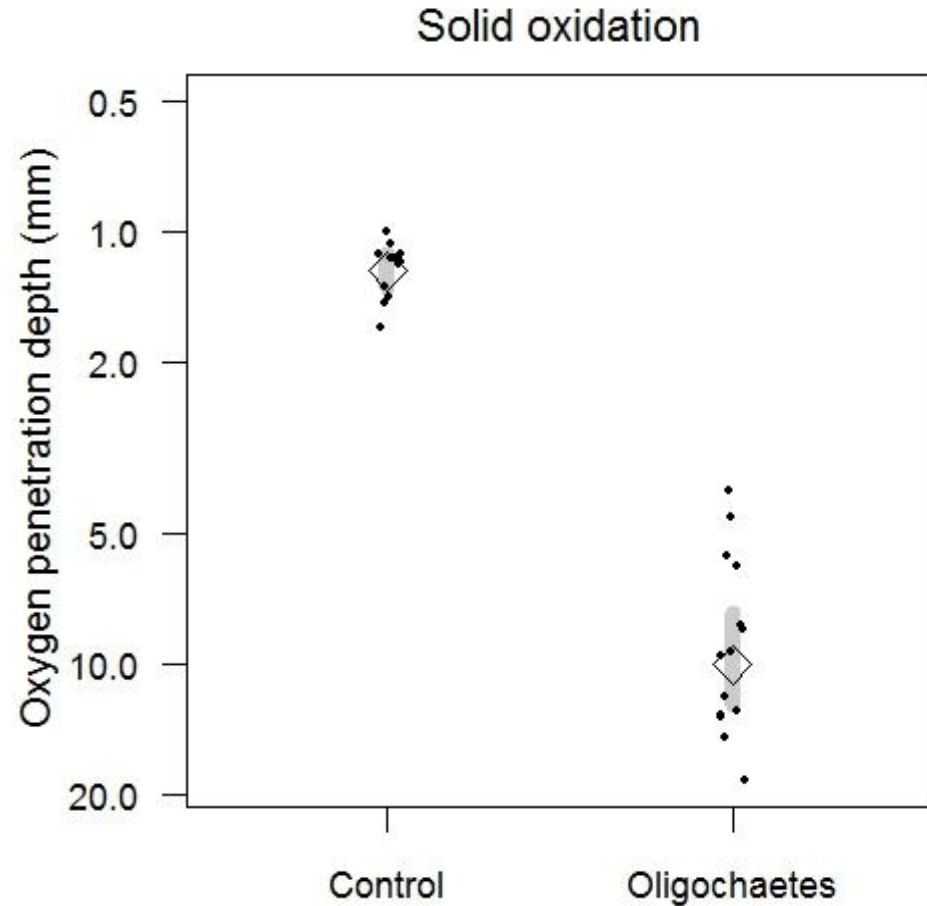


Bioturbation in fine-grained habitat

(a) Diffusion-dominated system

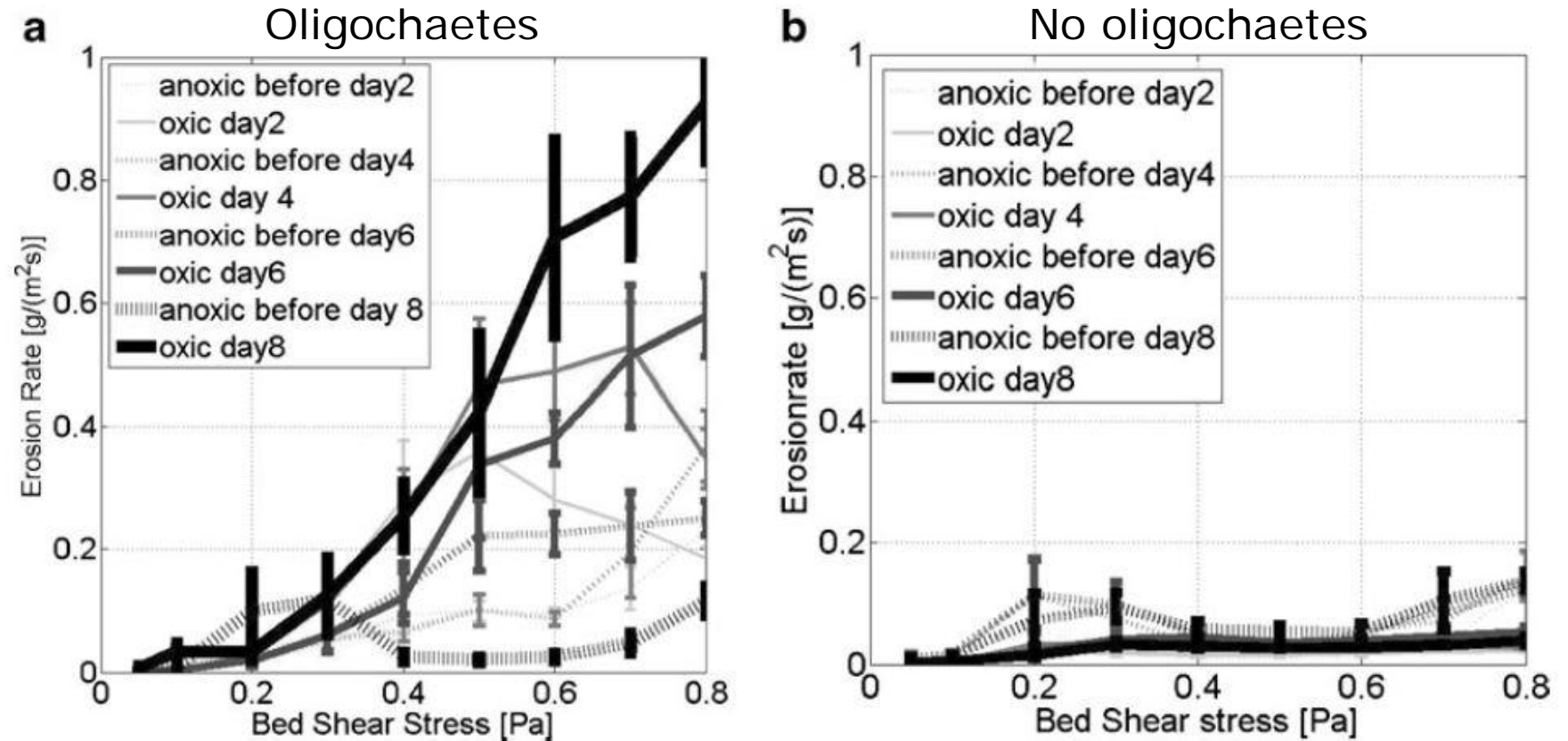


Oxygen penetration depth



Markermeer oligochaete bioturbation

- Increased bed erosion



Also biotic responses!

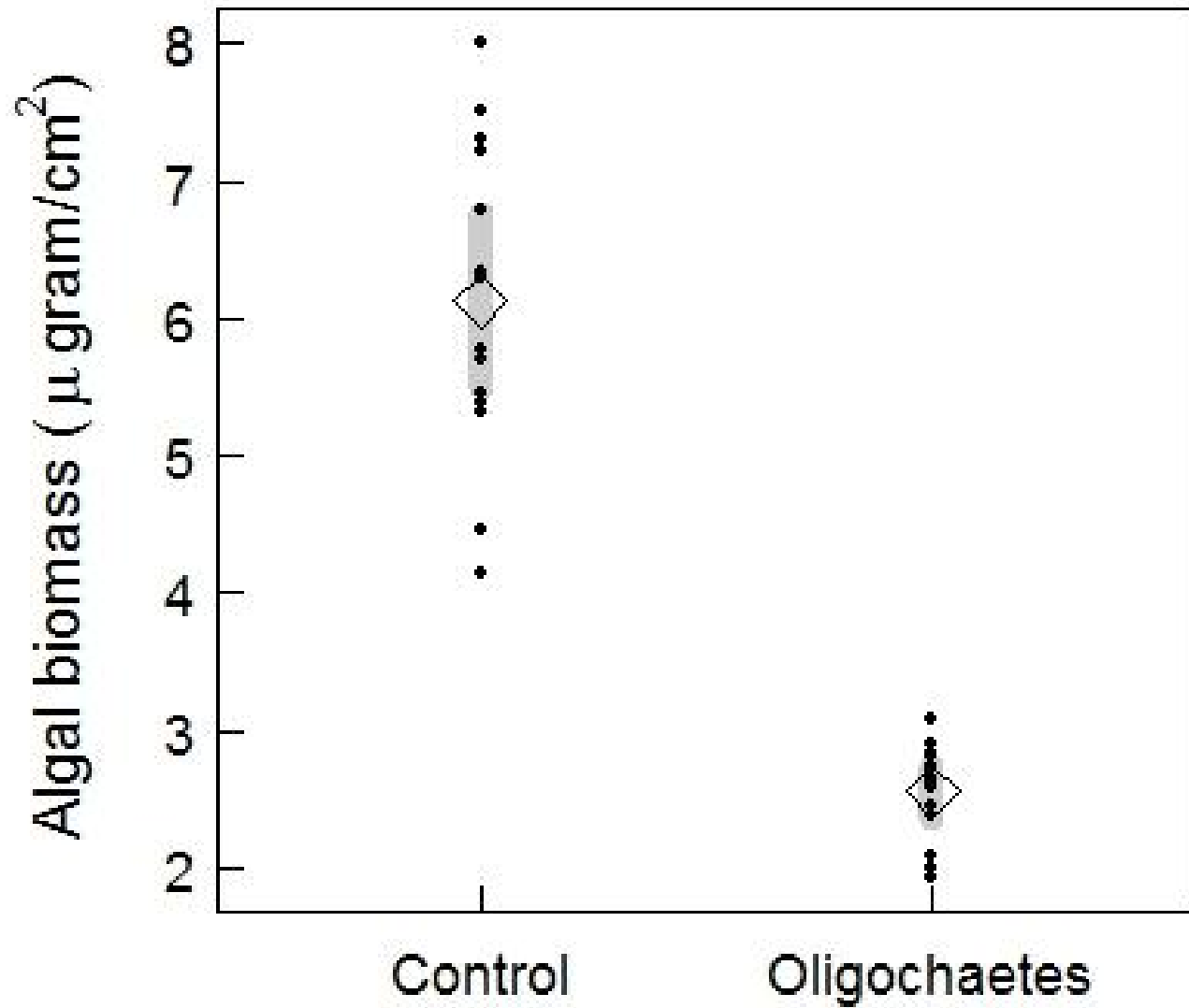
- Algae



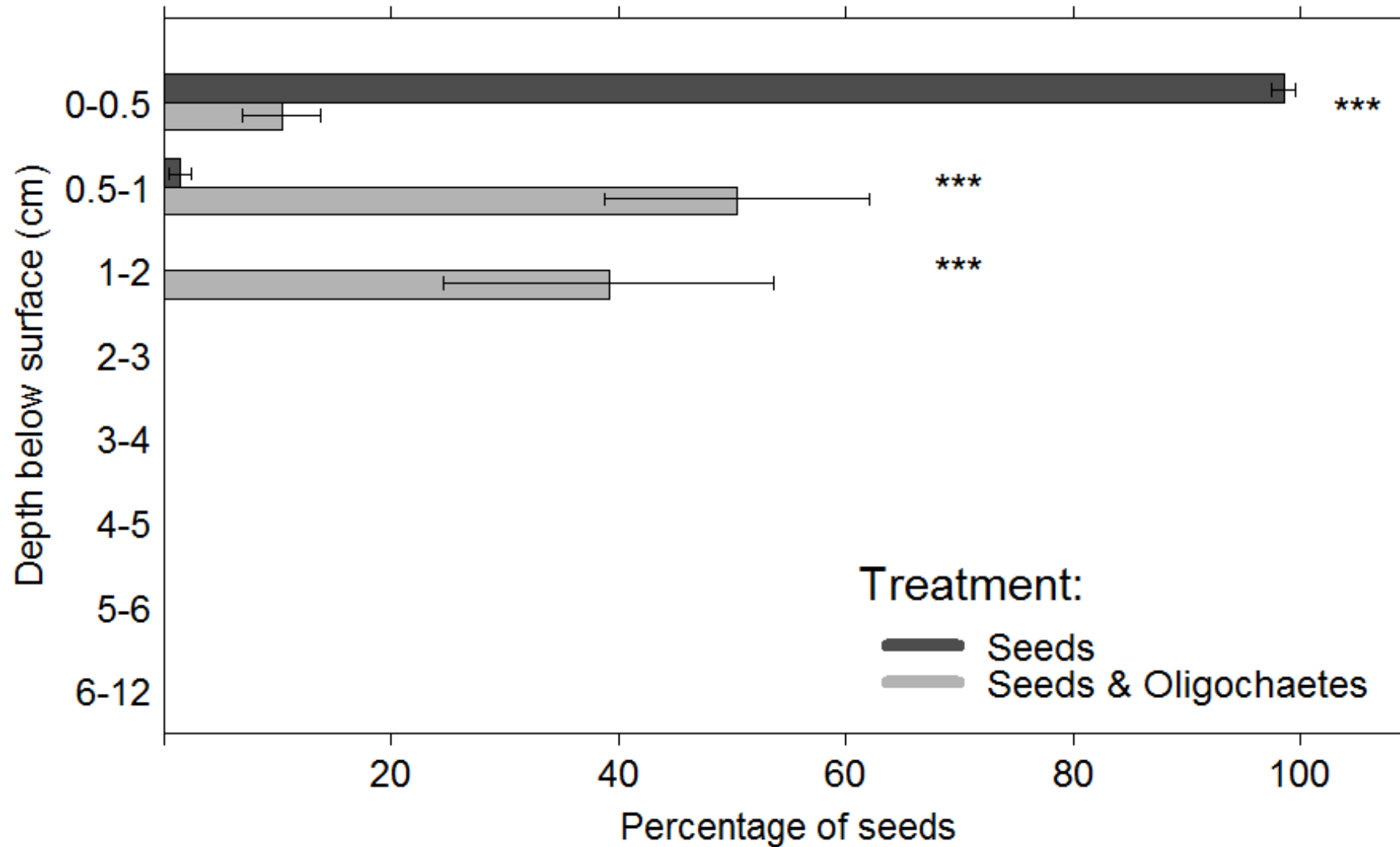
- Vegetation



Algal biomass



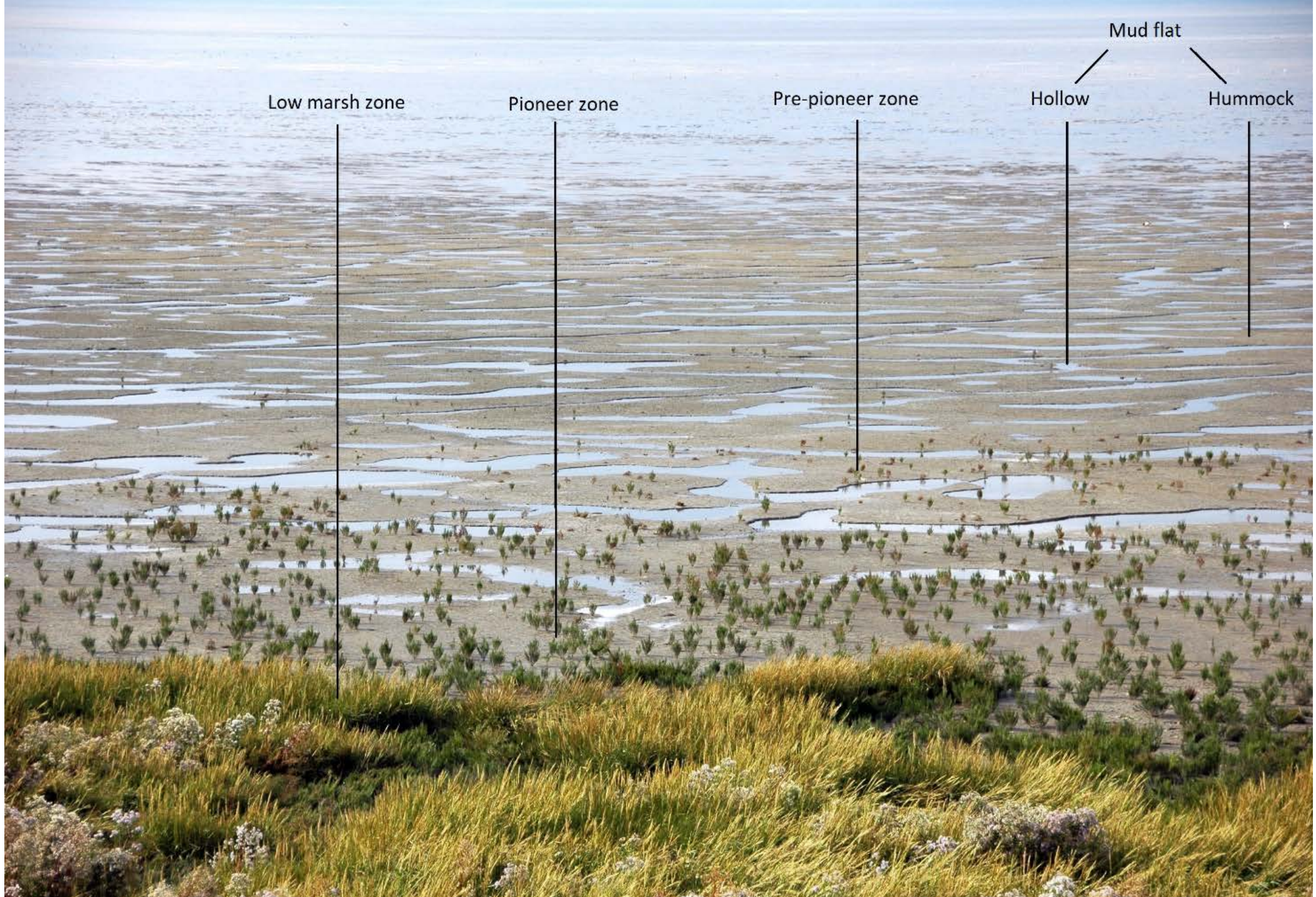
Salicornia seeds



Other species, similar



- Can be a limiting factor in salt marsh expansion/restoration



Low marsh zone

Pioneer zone

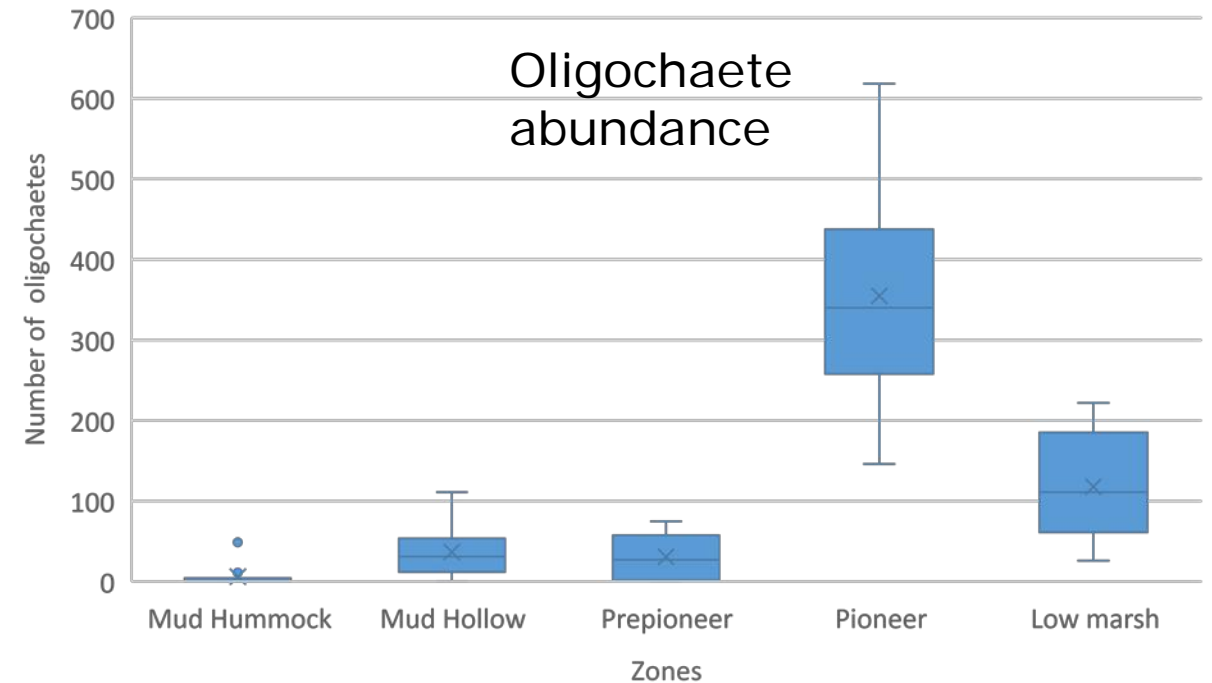
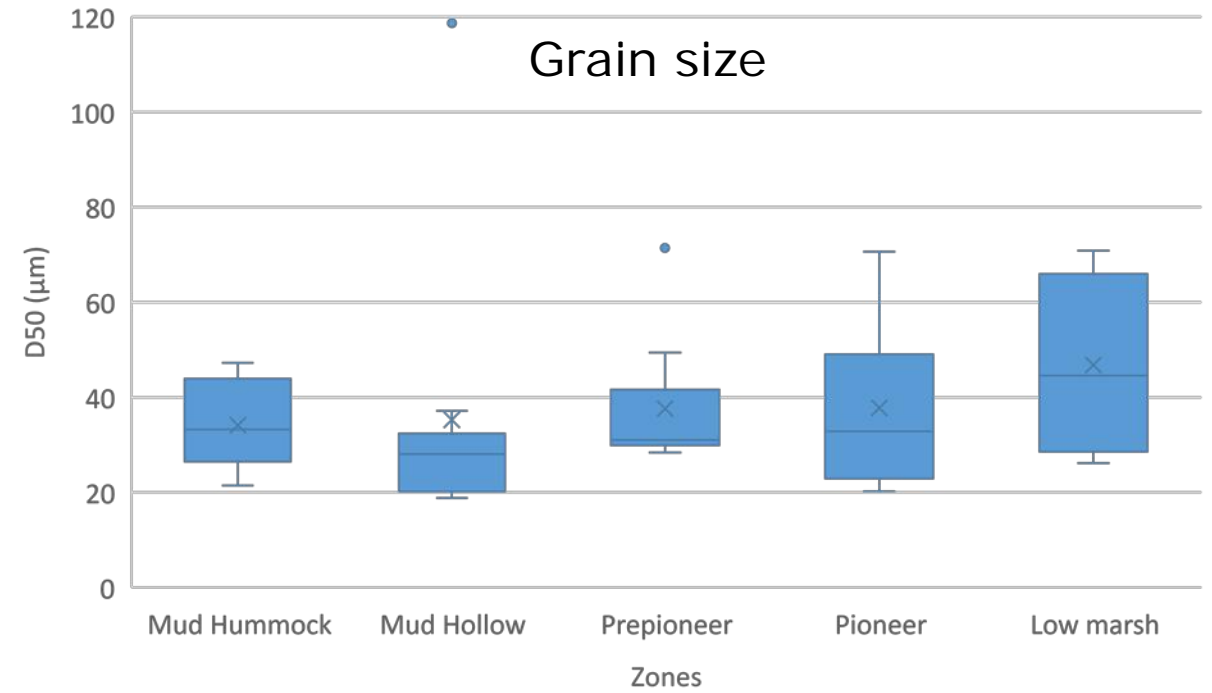
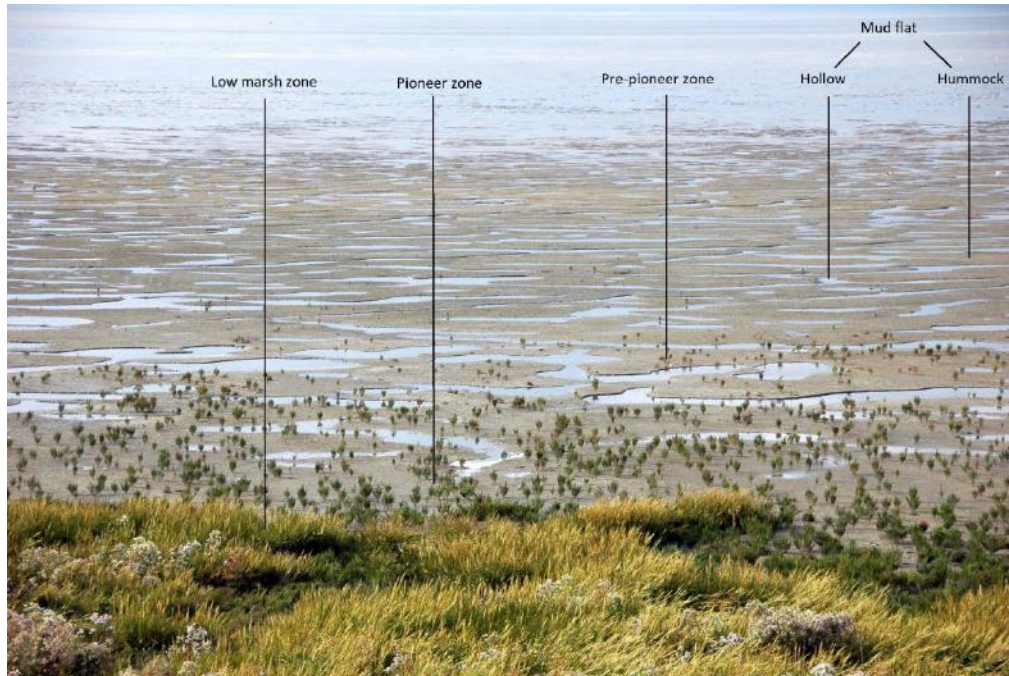
Pre-pioneer zone

Hollow

Mud flat

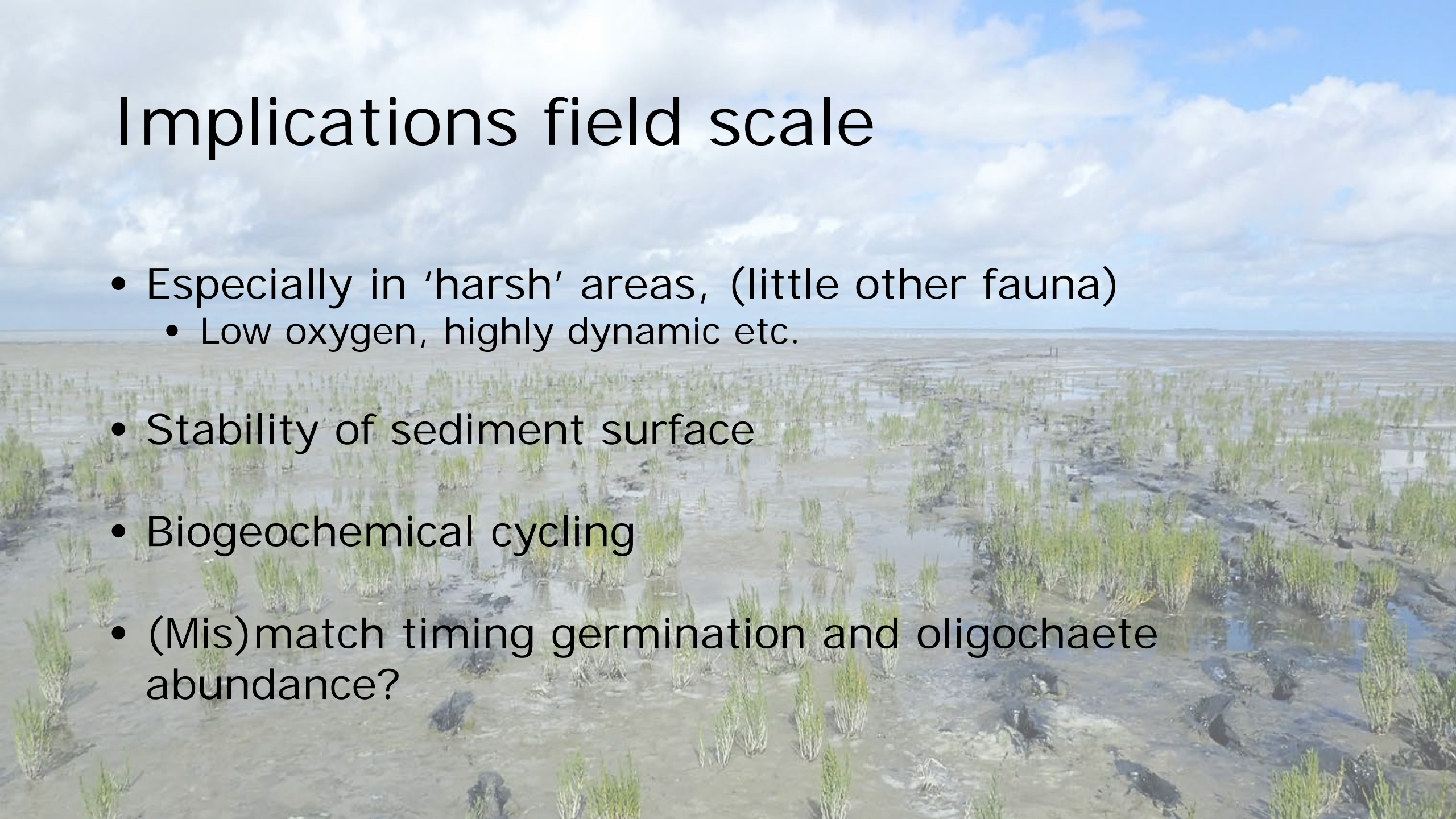
Hummock

Distribution not determined by grain size



Implications field scale

- Especially in 'harsh' areas, (little other fauna)
 - Low oxygen, highly dynamic etc.
- Stability of sediment surface
- Biogeochemical cycling
- (Mis)match timing germination and oligochaete abundance?





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Thanks for
your attention!
Questions?

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