

Ecosystem engineered habitats as indicators for Seafloor Integrity

Importance of soft substratum ecosystem engineers

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Amphiura filiformis

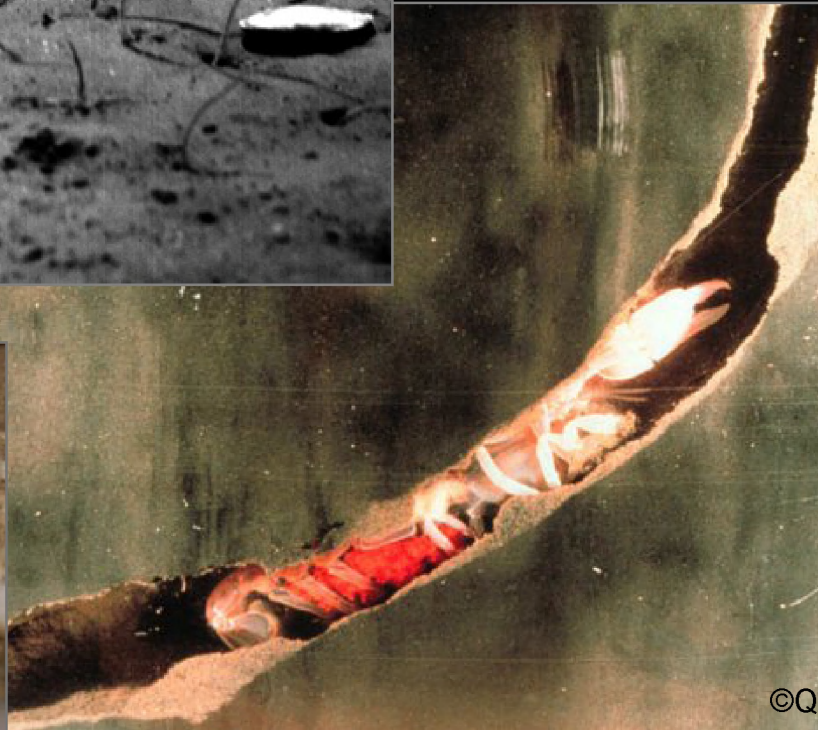


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Abra alba

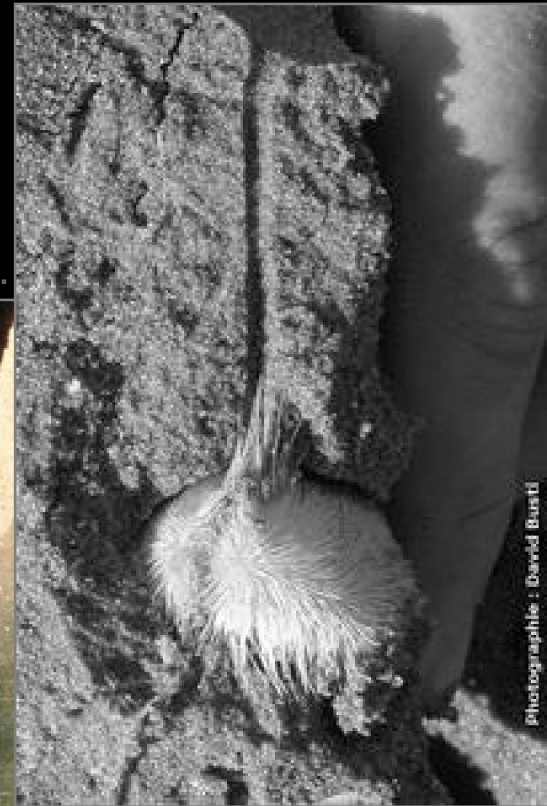


Callianassa spp.



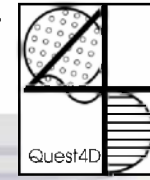
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Echinocardium cordatum



Photographie : David Burti

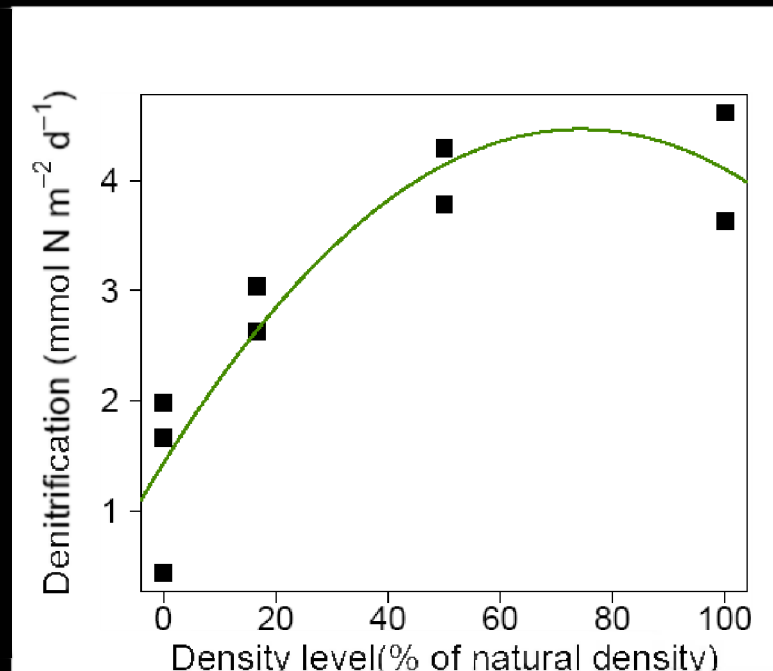
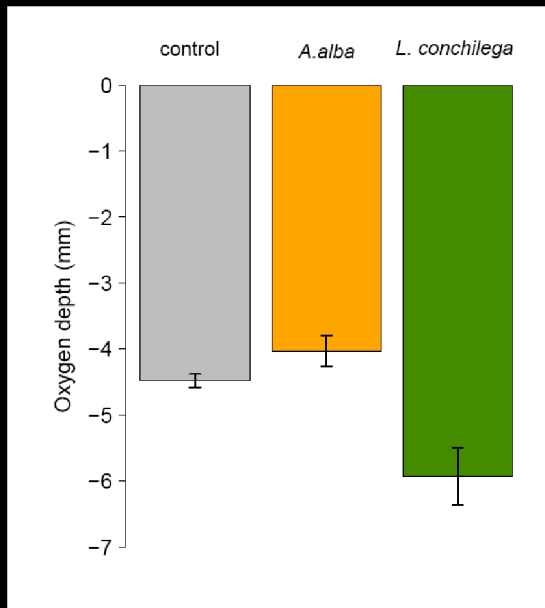


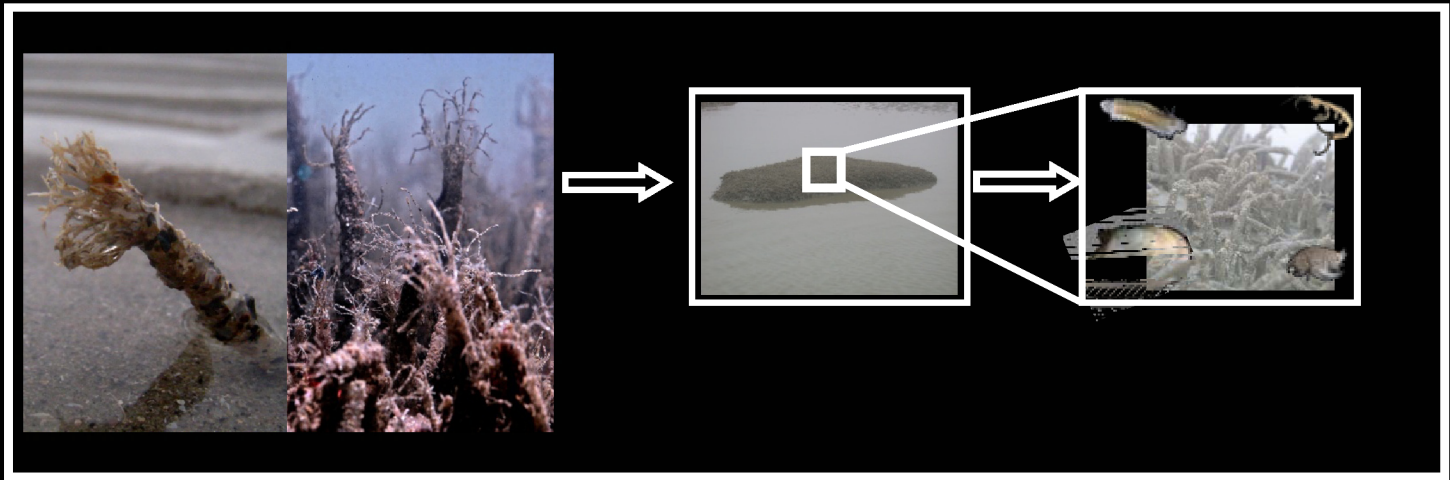


Biological mixing influence on benthic fluxes

Bio-irrigator - *Lanice conchilega*

- Bio-irrigator: Oxygen deep in sediment
- Stimulates mineralization processes (e.g. denitrification)
- *L. conchilega* densities are important for mineralization

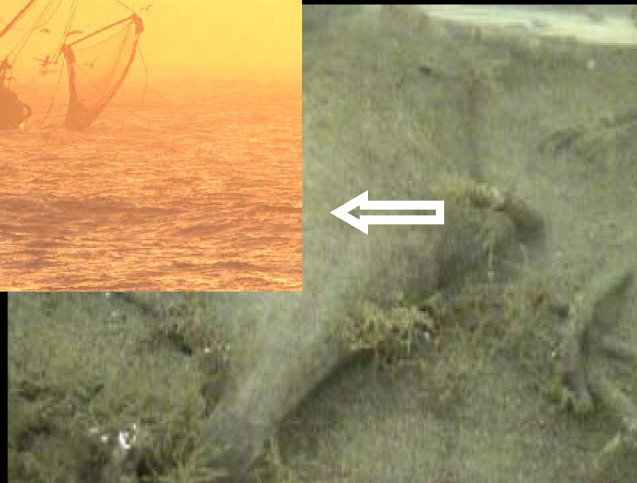


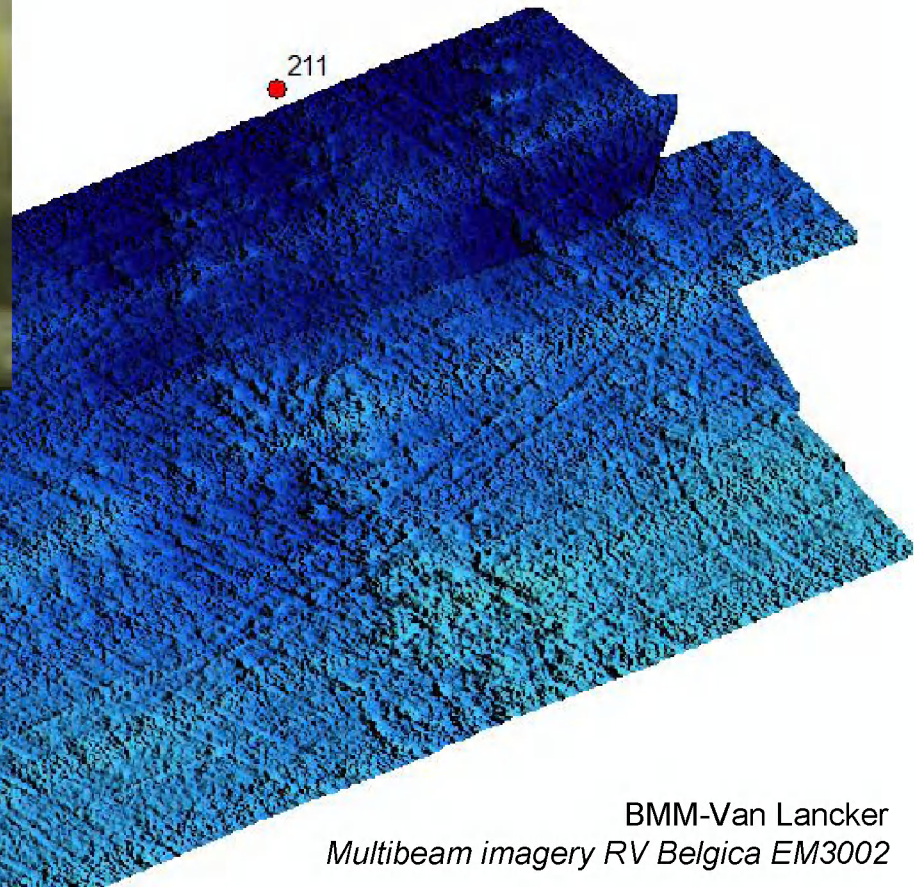
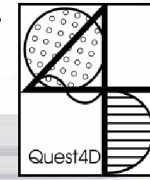


**Habitat
modification** ↑



Interactions





Ecosystem engineers and seafloor integrity

Ecosystem engineers ~ disproportional effect on B and EF

→ EE'd habitats in suboptimal status are therefore to be considered as a good **indicator** of loss of seafloor integrity



Ecosystem engineers can protect numerous associated species and functions

→ EE in soft bottoms important if it comes to GES of the seafloor