Shading and alterations of the sediment: *in situ* experiments to mimic impacts of fish farms on a Mediterranean coastal ecosystem

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Introduction:

For about ten years, fish farming has been expanding in the Mediterranean Sea and its impact on the surrounding environment is important. For a better understanding of that problem, *in situ* experiments were led to mimic effects of fish farms on one of the most important coastal Mediterranean ecosystem: the *Posidonia oceanica* meadow.

Material and methods:

- **Study site** (Calvi Bay, Corsica, Fig.1): *P. oceanica* meadow situated near the research station STARESO.
- **Experimental design** (Fig.2): Control site, Alteration site (sediment coming from under the fish farm of Calvi, Fig. 2a,b), Shading site (Fig. 2c).
- **Duration**: 3 months.

Discussion and conclusions:

These experiments have affected both *P. oceanica* and the sedimentary compartment, as in true fish farms. However, during those 3 months, the plant was mainly affected by the shading, whereas alterations of the sediment have essentially had an impact on parameters of the sedimentary compartment and organisms living in it.

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