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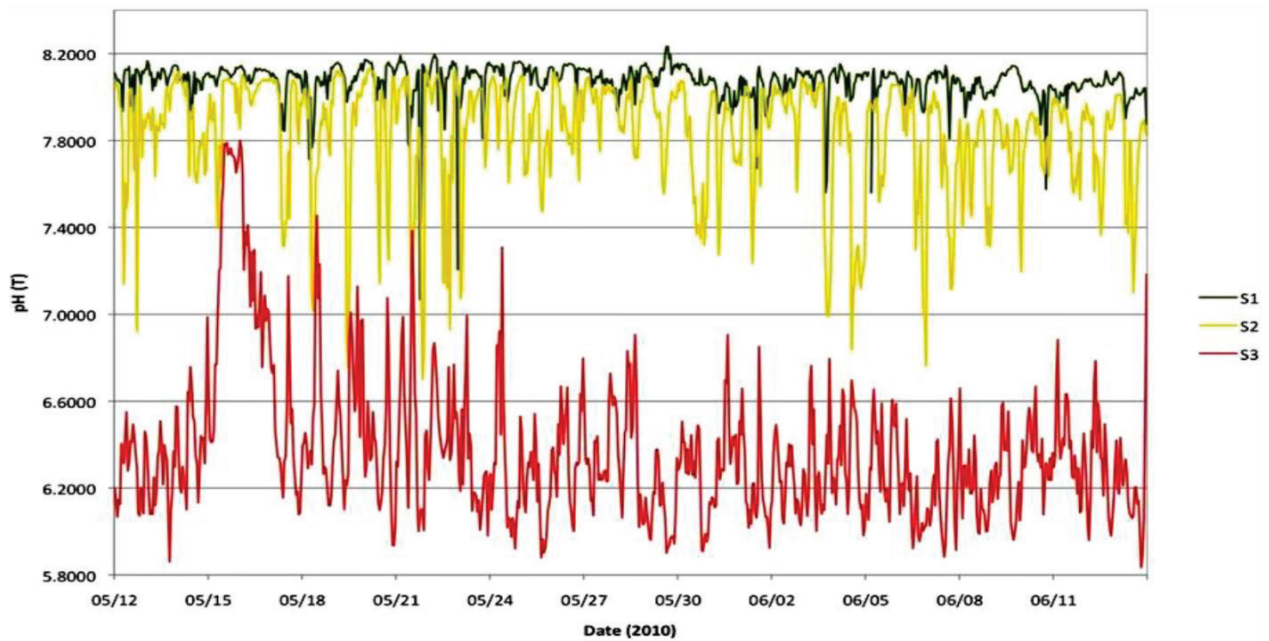
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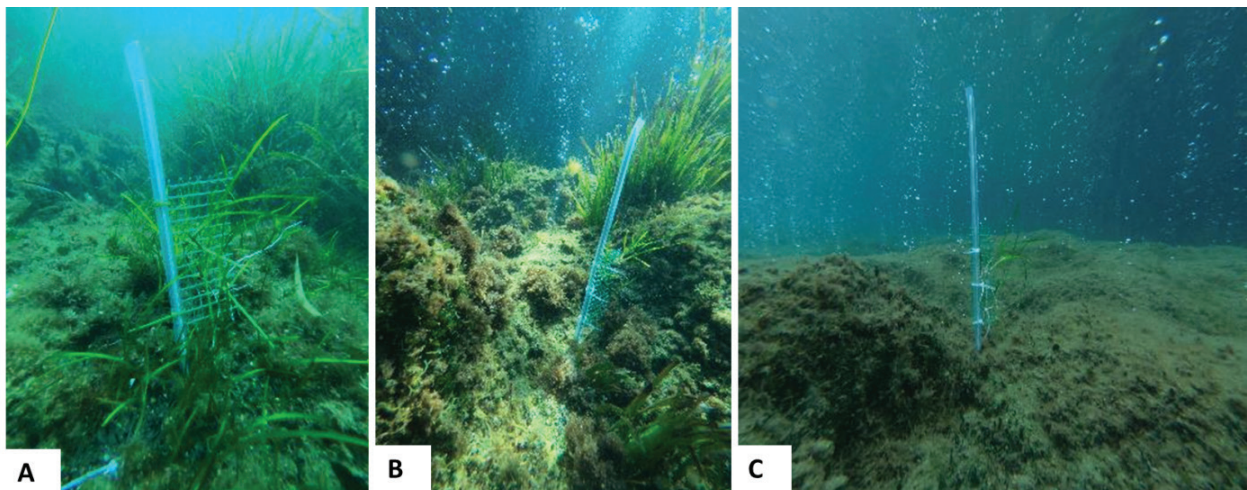
In situ experiments on the effect of low pH on the ultrastructure of the seagrasses *Cymodocea nodosa* and *Posidonia oceanica*

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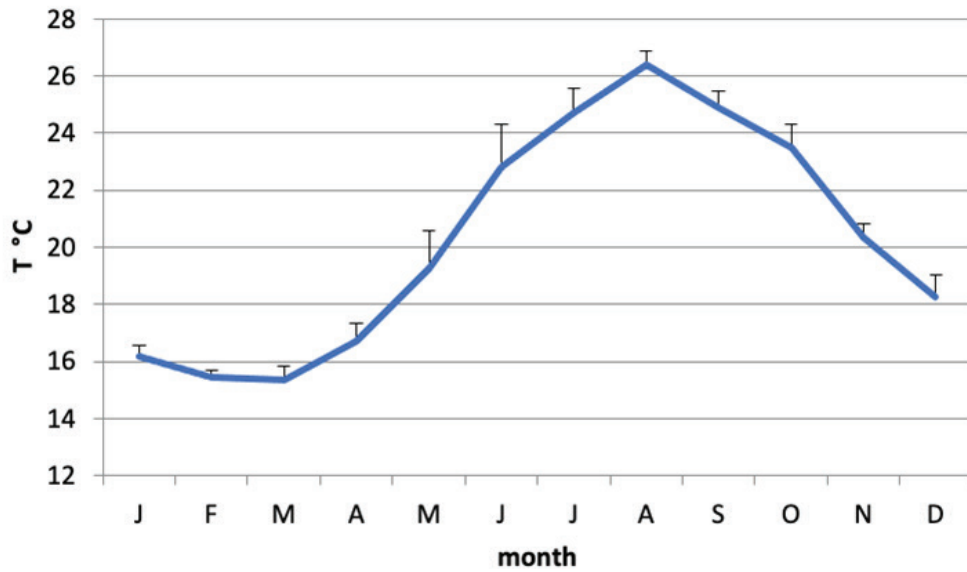
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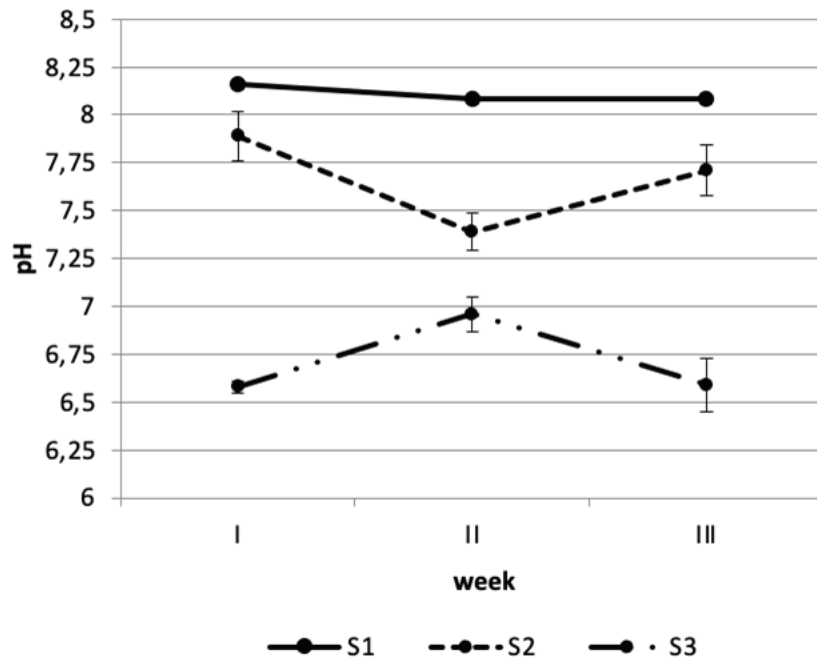
Suppl. Fig. 1: Variability of seawater pH on the southern side of the Castello Aragonese (from Porzio *et al.*, 2011).



Suppl. Fig. 2: Plastic frame with iron bar used for the experimental procedure at area S1 (A), area S2 (B) and area S3 (C).

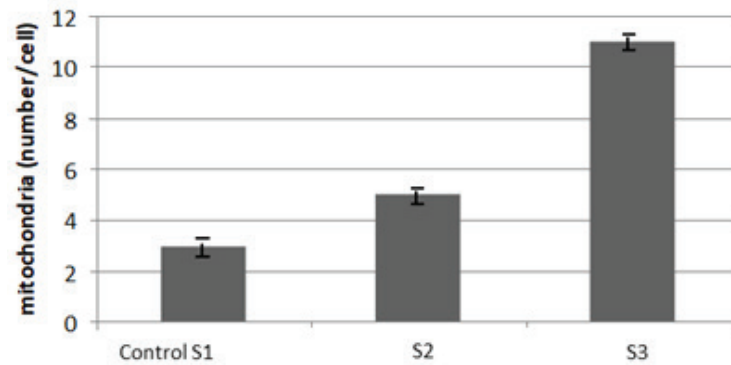


Suppl. Fig. 3: Water temperature in June and July (experimental period), matching ambient seasonal fluctuations (13-25°C).



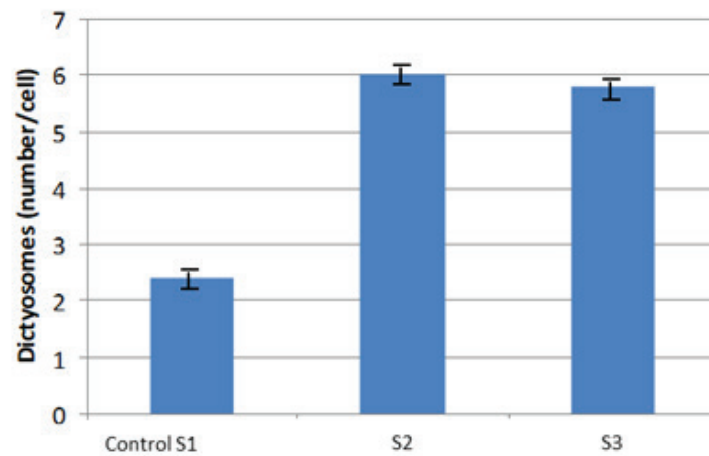
Suppl. Fig. 4: Weekly mean values of pH recorded at the three vents sites, varying from 8.08 ± 0.004 (S1) to 7.71 ± 0.133 (S2) to 6.584 ± 0.145 (S3).

C. nodosa



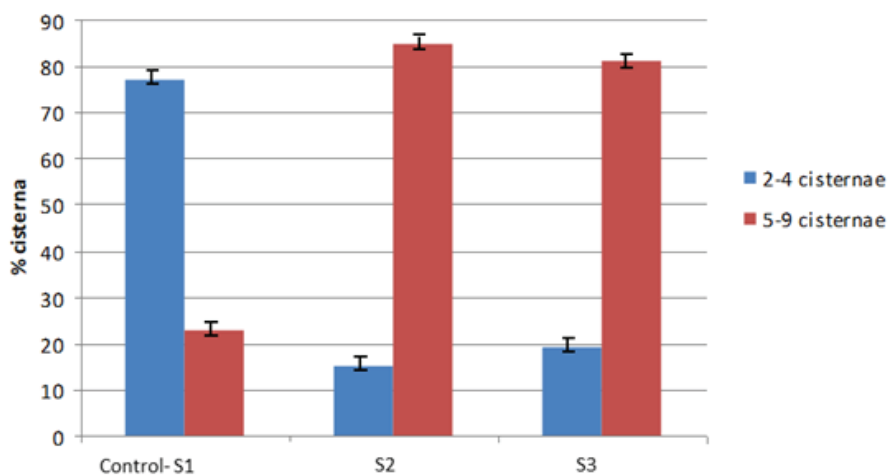
Suppl. Fig. 5: Histogram showing the number of mitochondria in epidermal cells in *C. nodosa* in the control area and in S2 and S3 areas. Transfer for one week in S2 resulted in a slight increase of the number of mitochondria per cell; at S3 mitochondria were three times as abundant compared to the control.

C.nodosa



Suppl. Fig. 6: Histogram showing the number of dictyosomes in epidermal cells in *C. nodosa* in the control area and after one week in S1 and S2 areas.

Dictyosomes -cisterna



Suppl. Fig. 7: Histogram showing the percentage of dictyosomes with a specific number of cisternae (2-4 and 5-9) in epidermal cells in *C. nodosa* in the control area and after one week in S2 and S3 areas. After one week in S2 and S3 areas the number of dictyosomes with 5-9 cisternae was increased to four times that of the control.