

Epiphytic bryozoan assemblages on *Posidonia oceanica* leaves in the area affected by Costa Concordia wreck

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Epiphytes cover on *Posidonia oceanica* leaves in the area affected by Costa Concordia wreck (Giglio Island, Tuscany, Italy) have been assessed as indicator of environmental quality within the integrated monitoring plan set up after the accident. Bryozoans have wide habitat distribution and are one of the most common sessile organisms in the epiphytic community of *P. oceanica*, have large species diversity and so are potential indicators of environmental factors and changes. The samples were taken from shortly after the sinking of the ship until just before the removal of the wreck in July (2012, 2013 and 2014). Three sampling sites were selected according to an asymmetric hierarchical experimental design. Three sampling areas of approximately 5 × 5 m and tens of meters apart from each other were randomly selected in each site. Five orthotropic shoots were collected haphazardly for each area. The sites were differently related to the influence of the wreck; one impact and two control sites. Percentage cover of bryozoan species was evaluated on the whole internal face of the four outer leaves per shoot. The analysis of the epiphyte community allowed us to identify most species normally present on these substrates. Besides a high natural spatio-temporal variability, feeble differences in the bryozoan assemblages were detected between the site near the wreck and the control sites, probably as a consequence of several synergic effects, firstly to the physical presence of the wreck and of the wreck removal yard.