

## **Evaluation of bleaching in the coralline alga, *Corallina officinalis*, under increased temperatures**

Increasing ocean temperatures may have detrimental impacts on many marine organisms, including coralline algae. *Corallina officinalis* may respond to thermal stress by bleaching – the decreasing or complete removal of vital photosynthetic pigments. This study tested the rate of bleaching in *C. officinalis* when exposed to three different temperature treatment groups. Individual *C. officinalis* samples were evaluated for bleaching which was measured by recording absorbance values of chlorophyll *a* and *b*, phycoerythrin, phycocyanin, and allophycocyanin, as well as photographically determining mean color value every 24 h. The data showed that the response of the individuals was highly variable, but a clear visual trend displayed that the algae bleached more in the higher temperature treatment groups by the end of the trials when compared to the control treatment group. Increased seawater temperatures may induce the loss of necessary photopigments in coralline algae. Further research needs to be conducted in order to understand the full implications that global climate change may have on *C. officinalis*.

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