The effects of ultraviolet radiation on the fertilization of the fucoid brown alga *Fucus vesiculosus*

The objective of this study was to observe the effects of ultraviolet radiation (UVR) on three aspects of *Fucus vesiculosus* reproduction: timing of release of gametes, presence of oogonia, and timing of fertilization. Samples of eggs and sperm were exposed to UVR for a span of 4 h outside, during sunny conditions. The time of release of the gametes was noted while they were outside. The oogonia and timing of fertilization data were collected in the lab after 4 h exposure to UVR. Treatment groups containing irradiated gametes showed a slower fertilization time compared to the control treatment in which neither of the gametes were irradiated. Irradiated eggs had a higher presence of oogonia than non-irradiated eggs. The time of release of gametes was shown to not be affected by UVR exposure. The results found suggest that *F. vesiculosus* fertilization could be impaired by increasing exposure to UVR which could lead to a decrease in the population of *F. vesiculosus* in the intertidal.