

Lovett, Heidi (1984). "Ecology of *Fucus distichus* ssp. *edentatus* (L.) powell: Effects of Sand Burial on its Longevity, Growth Rate and Reproductive Phenology & Investigation of Transplantation of <sup>14</sup>C-Labelled Products".

A population of *Fucus distichus* spp. *edentatus* on the coast of Maine was investigated to note affects of sand burial on its growth, longevity, and reproductive phenology. Buried plants exhibited a substantial decrease in longevity as compared to individuals that were not disturbed by sand. The average growth rate from August, 1983 through March, 1984 for buried plants with 3.25 cm/28 days, a great increase over the 1.88 cm/28 days exhibited by undisturbed plants. A spurt of growth of 5.47 cm / 28 days was observed in early December following an increase in the sand height around the plants during October, suggesting a direct correlation between burial and growth. There was no recorded difference in the reproductive phenologies of the two observed groups.

Translocation of photosynthesizing products from exposed portions to buried portions of the plant is suggested to be the mechanism to enable the plant to survive and grow. However, laboratory experiments using NaH<sup>14</sup>CO<sub>3</sub> did not provide evidence for this hypothesis.