The effect of sound frequency on the growth of *Saccharina latissima*

Terrestrial and aquatic species can be affected by noise pollution in their habitats. As anthropogenic sound is increasing around the world, there are few, if any, studies on aquatic vegetation and how, or if, they respond to sound waves. This study investigated how sound influences the growth rate of *Saccharina latissima*, an economically-significant species, also known as sugar kelp. An experimental laboratory study was conducted with two sound treatments (high frequency and low frequency) and a control (no sound) to test whether sound was a growth stimulant or inhibitor for *S. latissima*. There was no significant difference for kelp punch diameter between each sound treatment. A gradual trend of growth was observed over the course of the study for all treatment groups. The high frequency sound treatment samples had the highest recorded amount of growth, out of all three treatments. The control was the lowest recorded growth treatment. These results, provide insight to whether sound pollution should be a concern for seaweed nurseries or mariculture sites.

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