Analysis of the tensile strength of handmade paper from *Ascophyllum nodosum* and *Saccharina latissima*

Brown macroalgae, *Saccharina latissima* and *Ascophyllum nodosum*, can be sourced as an alternative raw material for paper products. The aim of the study was to determine which species of brown macroalgae and the treatment ratios macroalgae:wood (25:75, 50:50, and 75:25) that was most suitable for papermaking. Sheets of handmande paper were constructed with a mold and dried to be further processed into dog-bone shaped tensile testing strips. Increasing macroalagae impacted thickness and the tensile strength in both the *S. latissima* and *A. nodosum.* The 50:50 *S. latissima* was the most suitable species and ratio for papermaking.

Advisor: Sarah O'Malley, Steven Baer