**Table S1.** ANOVA results on the effects of attachment method (replants and unmanipulated) and wave exposure (sheltered and exposed –Helgoland– or very exposed –Nova Scotia–) on the tissue toughness of *Fucus vesiculosus* thalli.

Nova Scotia Helgoland

Source of variation df MS *F* *P* df MS *F* *P*

Attachment method 1 0.003 0.11 0.744 1 4.90 0.02 0.880

Wave exposure 1 8.190 286.57 < 0.001 1 5281.80 24.92 < 0.001

Attachment method x Wave exposure 1 0.021 0.72 0.397 1 354.90 1.67 0.204

Residual 116 0.029 36 212.0