

Environmental Predictors of Wrack Biomass

Generalized linear mixed-effects models with gamma distributions, log link functions, and site as a random effect (**p<.005, *p<.05)

| Model Name | Model Terms | K | AIC | ΔAIC | Model Likelihood | AIC Weight | Log Likelihood | Cumulative Weight |
|--|---|----|---------|--------|------------------|------------|----------------|-------------------|
| Intertidal Width | Intertidal Width*** | 4 | 862.369 | 0.000 | 1.000 | 0.765 | -427.185 | 0.765 |
| Intertidal Width + Biophysical Site Variables | Intertidal Width*** + Aspect + Slope + Wave Exposure | 7 | 865.905 | 3.536 | 0.171 | 0.131 | -425.952 | 0.896 |
| Intertidal Width + Climatic Variables | Intertidal Width* + Wind Direction + Wind Speed + Wave Height + Wave Period + High Tide | 9 | 867.994 | 5.625 | 0.060 | 0.046 | -424.997 | 0.942 |
| Null | Null | 3 | 869.101 | 6.731 | 0.035 | 0.026 | -431.550 | 0.968 |
| Climatic Variables | Wind Direction* + Wind Speed* + Wave Height* + Wave Period + High Tide* | 8 | 869.613 | 7.244 | 0.027 | 0.020 | -426.807 | 0.989 |
| Intertidal Width + Biophysical Site Variables + Climatic Variables | Intertidal Width + Aspect + Slope + Wave Exposure + Wind Direction + Wind Speed + Wave | 12 | 872.554 | 10.185 | 0.006 | 0.005 | -424.277 | 0.994 |

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|---|---|----|---------|--------|------------------|------------|----------------|-------------------|
| | Height + Wave Period + High Tide | | | | | | | |
| Biophysical Site Variables | Aspect + Slope + Wave Exposure | 6 | 873.009 | 10.640 | 0.005 | 0.004 | -430.505 | 0.997 |
| Biophysical Site Variables + Climatic Variables | Aspect + Slope + Wave Exposure + Wind Direction* + Wind Speed + Wave Height*** + Wave Period + High Tide* | 11 | 873.676 | 11.307 | 0.004 | 0.003 | -425.838 | 1.000 |