

**Figure S1.** The scaling relationship between body size and tusk length (red) of the narwhal (*Monodon monoceros*) demonstrates the steep scaling and ample investment into the tusk. Fluke width (gray), on the other hand, demonstrates the shallow scaling of a nonsexually selected trait. Red and gray lines represent ordinary least squares regression of tusk length and fluke width, respectively.

**Table S1.** Intercept, slopes and 95% confidence intervals of the log-log regression of tusk length and fluke width on body size.

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| --- | --- | --- | --- |
|  | Estimated parameter | 2.5% | 97.5% |
| 1. Fluke width
 |  |  |  |
| Intercept | -1.71 | -4.73 | 1.29 |
| Slope | 1.04 | 0.55 | 1.53 |
| 1. Tusk length
 |  |  |  |
| Intercept | -7.06 | -9.81 | -4.31 |
| Slope | 1.97 | 0.84 | 3.11 |