**Table S4.** The results of pairwise permutational analysis of variance (PERMANOVA) on the abundance of crabs with a carapace width smaller than 10 mm

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | df | SS | F | parametric P | permutation P |
| Season | 3 | 32 | 4.61 | 3.96 x 10-3 | < 0.0083 |
| Site | 5 | 70 | 6.08 | 3.34 x 10-5 | < 0.0083 |
| Season x Site | 15 | 57 | 1.65 | 6.57 x 10-2 | 0.06 |
| Residuals | 168 | 385 |  |  |  |
|  |  |  |  |  |  |
| Season | 3 | 32 | 3.84 | 1.07 x 10-2 | 0.01 |
| Tidal level | 1 | 2.3 | 0.83 | 3.62 x 10-1 | 0.36 |
| Season x Tidal level | 3 | 1.9 | 0.23 | 8.76 x 10-1 | 0.88 |
| Residuals | 184 | 507 |  |  |  |
|  |  |  |  |  |  |
| Season | 3 | 32 | 3.86 | 1.03 x 10-2 | 0.01 |
| Sampling time | 1 | 7.1 | 2.61 | 1.08 x 10-1 | 0.12 |
| Season x Sampling time | 3 | 0.9 | 0.11 | 9.55 x 10-1 | 0.96 |
| Residuals | 184 | 503 |  |  |  |
|  |  |  |  |  |  |
| Site | 5 | 70 | 5.4 | 1.18 x 10-4 | < 0.0083 |
| Tidal.level | 1 | 2.3 | 0.89 | 3.46 x 10-1 | 0.35 |
| Site x Tidal level | 5 | 7 | 0.54 | 7.44 x 10-1 | 0.75 |
| Residuals | 180 | 464 |  |  |  |
|  |  |  |  |  |  |
| Site | 5 | 70 | 5.52 | 9.34 x 10-5 | < 0.0083 |
| Sampling time | 1 | 7.1 | 2.83 | 9.44 x 10-2 | 0.1 |
| Site x Sampling time | 5 | 12 | 0.95 | 4.48 x 10-1 | 0.47 |
| Residuals | 180 | 454 |  |  |  |
|  |  |  |  |  |  |
| Tidal.level | 1 | 2.3 | 0.82 | 0.37 | 0.37 |
| Sampling.time | 1 | 7.1 | 2.54 | 0.11 | 0.11 |
| Tidal level x Sampling time | 1 | 4.4 | 1.56 | 0.21 | 0.22 |
| Site | 188 | 529 |  |  |  |

Note: Adjust P values = 0.05/6 = 0.0083.