Table S5. Results of PERMANOVA analysis test for the effects of habitat, water depths, sediment depth and their interaction on meiofaunal community structure at the Hikurangi Margin and Bay of Plenty study region. The effect of spatial covariates were taken into account for community analysis (result not shown). Significant factors at the 5% level are shown in bold. [df = degrees of freedom, SS = sum of squares, MS = mean square, Pseudo-F = Pseudo-F statistic, P = Probability, Unique perms = number of unique permutations, √ECV = square root of estimates of components of variation].

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | √ECV |
| ***Hikurangi Margin*** |  |  |  |  |  |  |  |
| Habitat | 2 | 1057.1 | 528.54 | 2.0555 | 0.0871 | 9940 | 3.4 |
| Water depth  | 3 | 1459.7 | 486.56 | 1.887 | 0.0593 | 9939 | 3.3 |
| **Sediment depth** | 1 | 4212.1 | 4212.1 | 14.351 | **0.0001** | 9959 | 8.2 |
| Habitat x Water depth  | 5 | 1177.1 | 235.43 | 0.91475 | 0.5403 | 9928 | -1.6 |
| Habitat x Sediment depth | 2 | 681.65 | 340.82 | 1.4507 | 0.219 | 9958 | 2.5 |
| Water depth x Sediment depth | 3 | 1440.7 | 480.24 | 1.9645 | 0.0793 | 9942 | 4.3 |
| Habitat x Water depth x Sediment depth | 5 | 693.6 | 138.72 | 0.64912 | 0.772 | 9947 | -4.2 |
| Residuals | 56 | 13935 | 248.84 |  |  |  |  |
| Total | 117 | 35644 |   |  |  |  |  |
|  |  |  |  |  |  |  |  |
| ***Bay of Plenty*** |  |  |  |  |  |  |  |
| Habitat | 1 | 320.16 | 320.16 | 1.3191 | 0.2718 | 9950 | 1.3 |
| **Water depth** | 3 | 1687.1 | 562.38 | 2.2748 | **0.0499** | 9948 | 3.2 |
| **Sediment depth** | 1 | 9383.5 | 9383.5 | 46.915 | **0.0001** | 9950 | 11.4 |
| Habitat x Water depth | 3 | 803.97 | 267.99 | 1.1084 | 0.3732 | 9945 | 1.3 |
| Habitat x Sediment depth | 1 | 171.3 | 171.3 | 1.0966 | 0.3920 | 9965 | 0.7 |
| Water depth x Sediment depth | 3 | 836.3 | 278.77 | 1.6326 | 0.1323 | 9941 | 2.7 |
| Habitat x Water depth x Sediment depth | 3 | 290.08 | 96.694 | 0.72397 | 0.6677 | 9937 | -2.5 |
| Residuals | 92 | 24228 | 263.35 |   |   |   |  |
| Total | 141 | 45542 |   |   |   |   |  |