**Supplementary material 2: The results of the SIMPER analysis, showing the dissimilarity of the species that most contributed the samples from different distances from the fish weir.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Comparison: Fish weir x 10 cm** | **Average dissimilarity = 42.25%** | | **Comparison: Fish weir x 50 cm** | **Average dissimilarity = 59.20%** | |
| **Taxa** | **Contrib%** | **Cum.%** | **Taxa** | **Contrib%** | **Cum.%** |
| *Leukoma pectorina* | 13.64 | 13.64 | *Leukoma pectorina* | 14.2 | 14.2 |
| Nemertea | 10.44 | 24.08 | *Capitella* *capitata* | 11.75 | 25.95 |
| *Capitella* *capitata* | 9.4 | 33.49 | *Hiatella* *arctica*. | 11.44 | 37.4 |
| *Hiatella* *arctica*. | 8.53 | 42.02 | Nemertea | 8.25 | 45.65 |
| *Mediomastus californiensis* | 8.33 | 50.35 | *Laeonereis cuvieri* | 7.13 | 52.78 |
| **Comparison: Fish weir x 1 m** | **Average dissimilarity = 79.85%** | | **Comparison: Fish weir x 2 m** | **Average dissimilarity = 78%** | |
| **Taxa** | **Contrib%** | **Cum.%** | **Taxa** | **Contrib%** | **Cum.%** |
| *Magelona* sp. | 16.25 | 16.25 | *Magelona* sp. | 17.15 | 17.15 |
| *Leukoma pectorina* | 13.73 | 29.98 | *Leukoma pectorina* | 12.02 | 29.17 |
| *Capitella* *capitata* | 11.25 | 41.23 | *Capitella* *capitata* | 9.89 | 39.06 |
| *Hiatella* *arctica* | 10.91 | 52.14 | *Hiatella* *arctica* | 9.61 | 48.67 |
|  |  |  | *Mediomastus californiensis* | 6.01 | 54.68 |
| **Comparison: Fish weir x 5 m** | **Average dissimilarity = 89.88%** | | **Comparison: Fish weir x Control area** | **Average dissimilarity = 94.79%** | |
| **Taxa** | **Contrib%** | **Cum.%** | **Taxa** | **Contrib%** | **Cum.%** |
| *Magelona* sp. | 13.74 | 13.74 | *Magelona* sp. | 12.57 | 12.57 |
| *Leukoma pectorina* | 9.63 | 23.37 | *Leukoma pectorina* | 8.8 | 21.37 |
| *Capitella* *capitata* | 7.95 | 31.32 | *Orbinia* sp. | 7.93 | 29.3 |
| *Hiatella* *arctica* | 7.74 | 39.05 | *Capitella* *capitata* | 7.29 | 36.59 |
| *Orbinia* sp. | 7.11 | 46.16 | *Hiatella* *arctica* | 7.1 | 43.69 |
| Nemertea | 6.68 | 52.85 | *Nephtys simoni* | 6.66 | 50.35 |