**Supplementary material**



Figure SM1. Taxonomic richness, abundance and biomass of invertebrate macrofauna in spring and autumn



Figure SM2. Taxonomic richness, abundance and biomass of bentho-demersal fish in spring and autumn

Table SM1: δ13C and δ15N isotope compositions (mean ± SD), SEAc (corrected standard ellipse area) and SEAb (Bayesian estimator of the standard ellipse area, mean ± SD) of the main fish species collected at the two periods

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Period | Species | Nb samples | SEAc | SEAb |
| Spring | *D. labrax* | 30 | 0.23 | 0.23 ± 0.05 |
| *P. flesus* | 18 | 13.84 | 13.82 ± 2.76 |
| *P. microps* | 36 | 2.05 | 2.09 ± 0.37 |
| *P. minutus* | 29 | 0.77 | 0.78 ± 0.15 |
| Autumn | *D. labrax* | 37 | 1.17 | 1.17 ± 0.20 |
| *P. flesus* | 13 | 9.65 | 9.74 ± 2.96 |
| *P. microps* | 37 | 0.58 | 0.60 ± 0.10 |
| *P. minutus* | 37 | 1.00 | 1.01 ± 0.18 |

Table SM2: δ13C and δ15N isotope compositions (mean) of the main fish species collected at the two periods. nd: no data

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Spring | | | |  | Autumn | | | |
|  | 13C | SE | 13C | SE |  | 13C | SE | 13C | SE |
| POM river | -29,76 | 0,78 | 6,12 | 1,42 |  | -26,92 | 4,96 | 10,05 | 3,34 |
| POM estuarine | -21,99 | 0,56 | 5,98 | 0,51 |  | -20,94 | 0,43 | 6,76 | 0,30 |
| Microphytobenthos | -16,27 | 5,90 | 6,79 | 0,57 |  | -15,49 | 1,56 | 7,41 | 1,32 |
| *Bathyporeia pilosa* | -15,52 | 0,34 | 8,36 | 0,31 |  | -15,13 | 0,41 | 10,09 | 0,31 |
| *Corophium arenarium* | -17,11 | 0,59 | 8,61 | 0,21 |  | -16,34 | 0,78 | 9,49 | 0,07 |
| *Crangon crangon* | -14,40 | 0,52 | 12,54 | 0,35 |  | -13,98 | 0,48 | 13,03 | 0,44 |
| *Neomysis integer* | -18,13 | 0,44 | 10,83 | 0,32 |  | nd | nd | nd | nd |
| *Schistomysis spiritus* | -17,21 | 0,19 | 10,03 | 0,42 |  | nd | nd | nd | nd |
| *Cerastoderma edule* | -17,46 | 0,81 | 9,34 | 0,34 |  | -17,58 | 0,83 | 9,58 | 0,42 |
| *Limecola balthica* | -15,99 | 0,88 | 9,87 | 0,63 |  | -16,48 | 0,29 | 10,35 | 0,17 |
| *Hediste diversicolor* | -16,77 | 3,54 | 10,85 | 0,89 |  | -16,21 | 2,12 | 11,40 | 0,62 |
| *Nephtys hombergii* | nd | nd | nd | nd |  | -15,07 | 0,52 | 12,64 | 0,03 |
| *Arenicola marina* | nd | nd | nd | nd |  | -16,30 | 0,27 | 10,88 | 0,31 |
| *Dicentrarchus labrax* | -15,56 | 0,29 | 14,56 | 0,23 |  | -16,34 | 1,09 | 14,50 | 0,34 |
| *Platychtys flesus* | -19,86 | 2,99 | 12,42 | 1,42 |  | -17,98 | 2,39 | 12,77 | 1,21 |
| *Pomatoschistus microps* | -15,81 | 1,30 | 13,72 | 0,58 |  | -15,26 | 0,72 | 14,24 | 0,33 |
| *Pomatoshistus minutus* | -16,35 | 0,53 | 13,23 | 0,53 |  | -17,34 | 1,62 | 14,51 | 0,20 |