Supplement 1: Carbon stock of food-web compartments (mmol C m-2) for outside (outside PT) and inside plough tracks (inside PT) directly after the disturbance event in March 1989 (PD0.1), 0.5 yr post disturbance (September 1989, PD0.5), 3 yr post disturbance (January 1992, PD3), 7 yr post disturbance (February 1996, PD7) and 26 yr post disturbance (September 2015, PD26).

Data are presented as mean ± standard deviation, except for megafauna and fish at the PD26 disturbed and PD26 undisturbed sites, where no replicate photo tracks were analyzed (for details see Material and Methods).

Abbreviations are: Crust = megafaunal crustaceans, MacFSF = filter and suspension feeding macrofauna, MacDF = deposit feeding macrofauna, MacC = carnivory macrofauna, MacOF = omnivorous feeding macrofauna, PolSF = suspension feeding polychaetes, PolSDF = surface deposit feeding polychaetes, PolSSDF = subsurface deposit feeding polychaetes, PolC = carnivory polychaetes, PolOF = omnivorous feeding polychaetes, MegFSF = filter and suspension feeding megafauna, MegDF = deposit feeding megafauna, MegC =carnivory megafauna, MegOF = omnivorous feeding megafauna. Ref.: 1this study, 2(Borowski and Thiel, 1998), 3(Borowski, 2001), 4(Bluhm, 2001 and corresponding annex 2.08).

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Compart-ment** | **PD0.1,** | **PD0.1,** | **PD0.5,** | **PD0.5,** | **PD3,** | **PD3,** | **PD7,** | **PD7,** | **PD26,** | **PD26,** | **Ref.** |
| **outside PT** | **inside PT** | **outside PT** | **inside PT** | **outside PT** | **inside PT** | **outside PT** | **inside PT** | **outside PT** | **inside PT** |
| MacFSF | 3.42  10-2±  2.10  10-2 | 2.57  10-3±  6.42  10-3 | 2.61  10-2±  1.46  10-2 | 1.46  10-2±  3.85  10-3 | 3.60  10-2±  1.16  10-2 | 2.40  10-2±  1.33  10-2 | 3.15  10-2±  5.56  10-3 | 1.58  10-2±  5.56  10-3 | 2.93  10-2 | 2.00  10-2 | 1-3 |
| MacDF | 3.36  10-1±  6.22  10-1 | 2.29  10-2±  1.87  10-2 | 4.72  10-1±  2.94  10-1 | 3.85  10-1±  2.95  10-1 | 9.60±  3.93  10-1 | 8.77±  2.98  10-1 | 5.91  10-1±  3.29  10-1 | 2.94  10-1±  3.28  10-1 | 2.06  10-1 | 2.37  10-2 | 1-3 |
| MacC | 6.06  10-2±  2.06  10-1 | 7.04  10-2±  7.89  10-3 | 4.75  10-2±  9.80  10-2 | 4.50  10-2±  9.78  10-2 | 1.06±  1.30  10-1 | 9.73  10-1±  9.81  10-2 | 6.09  10-2±  1.09  10-1 | 2.58  10-2±  1.09  10-1 | 2.87  10-2 | 5.44  10-3 | 1-3 |
| MacOF | 1.90  10-3±  1.68  10-3 | 4.59  10-3±  5.47  10-3 | 2.06  10-3±  3.36  10-3 | 2.53  10-3±  3.36  10-3 | 3.16  10-3±  3.36  10-3 | 2.69  10-3±  3.78  10-3 | 2.93  10-3±  5.89  10-3 | 3.16  10-3±  2.94  10-3 | 2.21  10-3 | 2.58  10-3 | 1-3 |
| PolSF | Not detected | Not detected | Not detected | Not detected | Not detected | Not detected | Not detected | Not detected | 2.82  10-2 | 2.20  10-2 | 1-3 |
| PolSDF | 6.56  10-1±  3.90  10-1 | 2.99  10-1±  7.12  10-1 | 1.35±  4.29  10-1 | 1.10±  7.37  10-1 | 2.35±  6.01  10-1 | 1.64±  5.36  10-1 | 3.20±  5.68  10-1 | 2.41±  1.18 | 6.39  10-1 | 7.70  10-1 | 1-3 |
| PolSSDF | 1.12±  5.11  10-1 | 3.55  10-1±  7.76  10-1 | 8.00  10-1±  3.31  10-1 | 3.71  10-1±  4.29  10-1 | 9.08  10-1±  3.74  10-1 | 1.22±  4.63  10-1 | 1.24±  3.53  10-1 | 1.80±  1.02 | 2.91  10-1 | 3.30  10-1 | 1-3 |
| PolC | 2.93  10-1±  2.61  10-1 | 2.31  10-1±  6.27  10-1 | 2.69  10-1±  1.92  10-1 | 2.11  10-1±  3.23  10-1 | 5.26  10-1±  2.85  10-1 | 3.46  10-1±  2.46  10-1 | 7.17  10-1±  2.69  10-1 | 5.09  10-1±  5.42  10-1 | 2.77  10-1 | 2.64  10-1 | 1-3 |
| PolOF | 4.04  10-1±  3.06  10-1 | Not detected | 1.12  10-1±  1.24  10-1 | 8.99  10-2±  2.11  10-1 | 3.33  10-1±  2.27  10-1 | 1.30  10-1±  1.51  10-1 | 4.53  10-1±  2.14  10-1 | 1.92  10-1±  3.32  10-1 | 2.63  10-1 | 8.80  10-2 | 1-3 |
| Total Mac+Pol | 2.91±1.00 | 9.85  10-1±1.23 | 3.08±  6.65  10-1 | 2.22±  9.86  10-1 | 14.82±  8.98  10-1 | 13.11±  8.27  10-1 | 6.30±  8.28  10-1 | 5.25±  1.72 | 1.76 | 1.53 | 1-3 |
| MegFSF | 6.18  10-1±  5.85  10-1 | 4.42  10-3±  3.76  10-3 | 2.85  10-1±  9.09  10-2 | 1.87  10-2±  9.02  10-3 | 1.28±  8.16  10-1 | 8.14  10-1±  1.59 | 1.62±  1.25 | 1.81  10-1±  3.39  10-1 | 7.20 | 1.21 | 1, 4 |
| MegDF | 1.34±  4.85  10-1 | 2.89  10-1±  1.61  10-1 | 1.18±  4.76  10-1 | 3.21  10-1±  3.47  10-2 | 4.16±  3.09 | 1.55±  8.27  10-1 | 2.62±  1.23 | 1.17±  7.77  10-1 | 4.71 | 4.36 | 1, 4 |
| MegC | 5.63  10-1±  1.99  10-1 | 8.41  10-2±  4.91  10-2 | 8.29  10-1±  3.35  10-1 | 6.83  10-2±  3.20  10-2 | 1.86±  7.47  10-1 | 3.31  10-1±  1.95  10-1 | 5.16  10-1±  1.57  10-1 | 2.03  10-1±  7.61  10-2 | 2.00 | 1.43 | 1, 4 |
| MegOF | 3.86  10-3±  9.32  10-3 | Not detected | 4.86  10-3±  1.05  10-2 | Not detected | 6.43  10-3±  1.39  10-2 | Not detected | 1.04  10-2±  1.30  10-2 | 2.57  10-2±  3.38  10-2 | 5.41  10-2 | 1.51  10-1 | 1, 4 |
| Total Meg | 2.53±  7.86  10-1 | 3.78  10-1±  1.69  10-1 | 2.30±  5.89  10-1 | 4.08  10-1±  4.80  10-2 | 7.31±  3.28 | 2.69±  1.81 | 4.77±  1.76 | 1.58±  8.52  10-1 | 13.97 | 7.16 | 1, 4 |
| Osteich-thyes | 2.47  10-2±  1.89  10-2 | Not detected | 9.00  10-2±  6.53  10-2 | Not detected | 2.04  10-1±  1.05  10-1 | 1.74  10-2±  3.48  10-2 | 1.79  10-1±  7.61  10-2 | 5.17  10-2±  6.39  10-2 | 2.58  10-1 | 2.55  10-1 | 1, 4 |

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