**Table S3.** Dominating species in three communities (% of total respiration are given in parentheses, in descending order).

1. Chernaya Bight

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1993 | 1994 | 1996 | 1997 | 2006 | 2018 |
| My\_aren (40.6)  Per\_ulv (27.8)  Oligochaeta (12.7)  Mac\_bal (14.6) | My\_aren (35.3)  Per\_ulv (17.4)  Mac\_bal (14.6)  Oligochaeta (10.3) | Per\_ulv (35.0)  Mya\_are (16.1)  Myt\_edu (13.5)  Mac\_bal (10.2)  Oligochaeta (9.6) | Mya\_are (48.0)  Per\_ulv (19.5)  Mac\_bal (12.4) | Per\_ulv (33.5)  Mac\_bal (24.7)  Mya\_are (15.7)  Myt\_edu (8.8) | Per\_ulv (43.1)  Mya\_are (41.9) |

1. Medvezhya Bight

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1993 | 1994 | 1996 | 1997 | 2006 | 2016 | 2017 |
| Per\_ulv (47.6)  Myt\_edu (13.2)  Mya\_are (7.4) | Myt\_edu (36.7)  Per\_ulv (35.9)  Mac\_bal (14.6) | Per\_ulv (43.1)  Mac\_bal (26.9)  Sco\_arm (8.9) | Per\_ulv (41.7)  Mac\_bal (33.0)  Myt\_edu (15.1) | Per\_ulv (59.1)  Mac\_bal (15.4)  Oligochaeta (11.5) | Myt\_edu (45.2)  Per\_ulv (33.1) | Per\_ulv (56.5)  Myt\_edu (23.0) |

1. Seldyanaya Bight

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1993 | 1994 | 1996 | 1997 | 2006 | 2016 | 2017 |
| Per\_ulv (46.0)  Oligochaeta (15.4)  Myt\_edu (10.5)  Mac\_bal (7.9) | Per\_ulv (34.8)  Oligochaeta (26.7)  Mya\_are (8.1) | Per\_ulv (49.9)  Oligochaeta (26.1)  Mac\_bal (11.9) | Per\_ulv (44.2)  Oligochaeta (28.4)  Mac\_bal (8.3) | Per\_ulv (31.2)  Oligochaeta (30.4)  Mac\_bal (23.9) | Per\_ulv (49.9)  Mac\_bal (13.5)  Oligochaeta (13.2) | Per\_ulv (34.3)  Oligochaeta (27.1)  Mya\_are (19.5) |

Species abbreviations: Mya\_are - *Mya arenaria*, Per\_ulv - *Peringia ulvae*, Mac\_bal - *Macoma balthica*, Myt\_edu - *Mytilus edulis*, Sco\_arm - *Scoloplos armiger*.