

Supplementary Data 2. Taxonomic Abundance and Paleoecological Data. Mot.=Motility, Tier.=Tiering, Feed.=Feeding; MT=Motility-Tiering, TF=Tiering-Feeding, MF=Motility-Feeding; M=Fully or Facultatively Mobile, St=Stationary; E=Epifaunal, I=Infaunal, SI=Semi-Infaunal, S=Suspension-Feeding, D/S=Deposit or Suspension-Feeding, Ch=Chemotrophic, D=Deposit-Feeding.

| Taxa                                    | Paleoecological Categories |       |       |      |      |      |       | Bulk Samples |    |   |    |   |   |    |    |    |
|---|----------------------------|-------|-------|------|------|------|-------|--------------|----|---|----|---|---|----|----|----|
|   | Mot.                       | Tier. | Feed. | MT   | TF   | MF   | ALL   | 1            | 2  | 3 | 4  | 5 | 6 | 7  | 8  | 9  |
| Avicula (Bruguière 1791)                | St                         | E     | S     | StE  | ES   | StS  | StES  | 16           | 30 | 1 | 5  | 1 | 1 | 10 | 3  | 2  |
| Isognomon (Lightfoot 1786)              | St                         | E     | S     | StE  | ES   | StS  | StES  | 6            | 45 |   | 11 | 1 | 6 |    |    |    |
| Bakevella (King 1848)                   | St                         | SI    | S     | StSI | SIS  | StS  | StSIS | 9            | 21 |   | 2  |   | 4 |    | 1  | 1  |
| Modiolus (Lamarck 1799)                 | St                         | SI    | S     | StSI | SIS  | StS  | StSIS | 2            | 9  |   | 2  |   | 2 | 31 | 3  | 1  |
| Promysidiella (Waller and Stanley 2005) | St                         | E     | S     | StE  | ES   | StS  | StES  | 1            | 1  |   |    |   |   |    |    |    |
| Aguilerella (Chavan 1951)               | St                         | E     | S     | StE  | ES   | StS  | StES  | 1            | 2  |   |    |   |   |    |    |    |
| Mysidiella                              | St                         | E     | S     | StE  | ES   | StS  | StES  | 4            |    | 1 |    |   |   |    |    |    |
| Costatoria                              | M                          | I     | S     | MI   | IS   | MS   | MIS   | 2            |    |   | 5  | 2 | 1 |    | 2  |    |
| Hoernesia                               | St                         | E     | S     | StE  | ES   | StS  | StES  | 2            |    | 1 |    |   |   |    |    |    |
| Nucula (Lamarck 1799)                   | M                          | I     | D/S   | MI   | ID/S | MD/S | MID/S | 1            | 4  |   | 1  | 2 | 4 | 35 | 13 | 28 |
| Gastropod                               | M                          | E     | D     | ME   | ED   | MD   | MED   |              | 1  | 7 | 11 | 5 | 2 |    | 2  |    |
| Pholadomya (Sowerby 1823)               | M                          | I     | S     | MI   | IS   | MS   | MIS   |              |    | 1 |    |   |   |    |    |    |
| Liostrea (Douville 1904)                | St                         | E     | S     | StE  | ES   | StS  | StES  |              |    | 1 |    |   |   |    |    |    |
| Mytilus (Linnaeus 1758)                 | St                         | E     | S     | StE  | ES   | StS  | StES  |              | 1  | 1 | 3  |   | 2 | 13 | 1  |    |
| Megalodon (Agassiz 1843)                | St                         | SI    | S     | StSI | SIS  | StS  | StSIS |              | 1  | 2 |    |   |   |    |    | 1  |
| Myoconcha (Sowerby 1824)                | M                          | I     | S     | MI   | IS   | MS   | MIS   |              | 1  | 2 |    |   | 1 | 7  |    |    |
| Hoferia (Bittner 1894)                  | M                          | E     | S     | ME   | ES   | MS   | MES   |              | 1  | 1 |    |   | 4 |    |    |    |
| Nuculana (Link 1807)                    | M                          | I     | D/S   | MI   | ID/S | MD/S | MID/S |              |    | 1 | 1  |   | 2 | 18 | 22 | 11 |
| Gruenewaldia                            | M                          | I     | S     | MI   | IS   | MS   | MIS   |              |    | 1 |    |   |   |    |    | 1  |
| Pachycardia                             | M                          | I     | S     | MI   | IS   | MS   | MIS   |              |    | 1 |    |   |   |    |    | 1  |
| Palaeoneilo                             | M                          | I     | D     | MI   | ID   | MD   | MID   |              |    |   |    |   | 1 | 8  | 2  | 1  |
| Septifer (Récluz 1848)                  | St                         | E     | S     | StE  | ES   | StS  | StES  |              |    |   | 1  |   | 1 |    |    |    |
| Pinna (Linnaeus 1758)                   | St                         | SI    | S     | StSI | SIS  | StS  | StSIS |              | 3  |   |    |   | 5 | 16 | 80 | 13 |
| Brachiopod                              | St                         | E     | S     | StE  | ES   | StS  | StES  |              |    |   |    |   | 2 |    | 1  |    |
| Tirolidia (Bittner 1895)                | St                         | E     | S     | StE  | ES   | StS  | StES  |              |    |   |    |   | 2 |    |    |    |
| Mysidioptera (Salomon 1895)             | St                         | E     | S     | StE  | ES   | StS  | StES  |              |    |   | 1  |   | 2 |    |    |    |
| Gresslya (Agassiz 1843)                 | M                          | I     | S     | MI   | IS   | MS   | MIS   |              | 1  |   |    |   | 1 | 9  | 1  | 4  |

