Supplementary Material

Supplementary Figure CTD profiles focusing on the upper 300 m of the water column (delimited with the grey line). The top panel (A) represents from left to right the shelf stations 1 and 2, the middle panel (B) from left to right, slope stations 3 (1019 m), 4 (to 510 m), 5 (2166 m) and 6 (853 m), and lower panel (C), the basin station 7 (3094 m). In orange the temperature profile and in dark blue, the salinity.

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Supplementary Figure 2 Temperature-Salinity profile regarding depth, Ω Calcite and Ω Aragonite.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | Depth | Counted foraminifera | | | | | Absolute abundance foraminifera | | | | |
| > 500 µm | 250-500 µm | 100-250 µm | 63-100 µm | Total | > 500 µm (ind m-3) | 250-500 µm ( ind m-3) | 100-250 µm (ind m-3) | 63-100 µm (ind m-3) | Total (ind m-3) |
| Station 1 | 0-50 | 0 | 1 | 21 | 7 | 29 | 0.0 | 0.1 | 1.6 | 0.5 | 2.3 |
| Station 1 | 50-100 | 0 | 0 | 64 | 69 | 133 | 0.0 | 0.0 | 5.0 | 5.4 | 10.4 |
| Station 1 | 100-200 | 0 | 0 | 52 | 175 | 227 | 0.0 | 0.0 | 2.0 | 6.9 | 8.9 |
| Station 1 | 200-300 | 0 | 0 | 33 | 115 | 148 | 0.0 | 0.0 | 1.3 | 4.5 | 5.8 |
| Station 2 | 0-50 | 0 | 0 | 89 | 55 | 144 | 0.0 | 0.0 | 7.0 | 4.3 | 11.3 |
| Station 2 | 50-100 | 0 | 0 | 88 | 145 | 233 | 0.0 | 0.0 | 6.9 | 11.4 | 18.3 |
| Station 2 | 100-200 | 0 | 0 | 170 | 162 | 332 | 0.0 | 0.0 | 6.7 | 6.3 | 13.0 |
| Station 2 | 200-300 | 0 | 0 | 92 | 103 | 195 | 0.0 | 0.0 | 3.6 | 4.0 | 7.6 |
| Station 3 | 0-50 | 0 | 3 | 37 | 26 | 66 | 0.0 | 0.2 | 2.9 | 2.0 | 5.2 |
| Station 3 | 50-100 | 0 | 1 | 91 | 181 | 273 | 0.0 | 0.1 | 7.1 | 14.2 | 21.4 |
| Station 3 | 100-200 | 0 | 0 | 54 | 224 | 278 | 0.0 | 0.0 | 2.1 | 8.8 | 10.9 |
| Station 3 | 200-300 | 0 | 0 | 85 | 129 | 214 | 0.0 | 0.0 | 3.3 | 5.1 | 8.4 |
| Station 4 | 0-50 | 0 | 3 | 40 | 27 | 70 | 0.0 | 0.2 | 3.1 | 2.1 | 5.5 |
| Station 4 | 50-100 | 0 | 0 | 220 | 220 | 440 | 0.0 | 0.0 | 17.2 | 17.2 | 34.5 |
| Station 4 | 100-200 | 0 | 5 | 783 | 553 | 1341 | 0.0 | 0.2 | 30.7 | 21.7 | 52.6 |
| Station 4 | 200-300 | 0 | 9 | 381 | 360 | 750 | 0.0 | 0.4 | 14.9 | 14.1 | 29.4 |
| Station 5 | 0-50 | 0 | 3 | 3 | 41 | 47 | 0.0 | 0.2 | 0.2 | 3.2 | 3.7 |
| Station 5 | 50-100 | 0 | 0 | 122 | 15 | 137 | 0.0 | 0.0 | 9.6 | 1.2 | 10.7 |
| Station 5 | 100-200 | 0 | 0 | 341 | 292 | 633 | 0.0 | 0.0 | 13.4 | 11.4 | 24.8 |
| Station 5 | 200-300 | 0 | 0 | 223 | 136 | 359 | 0.0 | 0.0 | 8.7 | 5.3 | 14.1 |
| Station 6 | 0-50 | 0 | 2 | 16 | 27 | 45 | 0.0 | 0.2 | 1.3 | 2.1 | 3.5 |
| Station 6 | 50-100 | 0 | 15 | 118 | 93 | 226 | 0.0 | 1.2 | 9.2 | 7.3 | 17.7 |
| Station 6 | 100-200 | 0 | 1 | 181 | 212 | 394 | 0.0 | 0.0 | 7.1 | 8.3 | 15.4 |
| Station 6 | 200-300 | 0 | 2 | 174 | 96 | 272 | 0.0 | 0.1 | 6.8 | 3.8 | 10.7 |
| Station 7 |  |  |  |  |  |  |  |  |  |  |  |
| Station 7 | 50-100 | 0 | 0 | 135 | 145 | 280 | 0.0 | 0.0 | 10.6 | 11.4 | 21.9 |
| Station 7 | 100-200 | 0 | 0 | 183 | 320 | 503 | 0.0 | 0.0 | 7.2 | 12.5 | 19.7 |
| Station 7 | 200-300 | 0 | 0 | 73 | 177 | 250 | 0.0 | 0.0 | 2.9 | 6.9 | 9.8 |

Supplementary Table 1. Counts of foraminifera per size fraction and depth with the associated absolute abundance.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | Depth | Counted pteropods | | | | | Absolute abundance pteropods | | | | |
| > 500 µm | 250-500 µm | 100-250 µm | 63-100 µm | **Total** | > 500 µm (ind m-3) | 250-500 µm (ind m-3) | 100-250 µm (ind m-3) | 63-100 µm (ind m-3) | **Total** (ind m-3) |
| Station 1 | 0-50 | 1 | 102 | 33 | 9 | 145 | 0.1 | 8.0 | 2.6 | 0.7 | 11.4 |
| Station 1 | 50-100 | 2 | 0 | 5 | 0 | 7 | 0.2 | 0.0 | 0.4 | 0.0 | 0.5 |
| Station 1 | 100-200 | 0 | 4 | 14 | 3 | 21 | 0.0 | 0.2 | 0.5 | 0.1 | 0.8 |
| Station 1 | 200-300 | 0 | 0 | 3 | 3 | 6 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 |
| Station 2 | 0-50 | 0 | 64 | 0 | 15 | 79 | 0.0 | 5.0 | 0.0 | 1.2 | 6.2 |
| Station 2 | 50-100 | 14 | 40 | 14 | 5 | 73 | 1.1 | 3.1 | 1.1 | 0.4 | 5.7 |
| Station 2 | 100-200 | 5 | 0 | 1 | 4 | 10 | 0.2 | 0.0 | 0.0 | 0.2 | 0.4 |
| Station 2 | 200-300 | 0 | 0 | 3 | 14 | 17 | 0.0 | 0.0 | 0.1 | 0.5 | 0.7 |
| Station 3 | 0-50 | 46 | 56 | 16 | 13 | 131 | 3.6 | 4.4 | 1.3 | 1.0 | 10.3 |
| Station 3 | 50-100 | 100 | 22 | 4 | 5 | 131 | 7.8 | 1.7 | 0.3 | 0.4 | 10.3 |
| Station 3 | 100-200 | 3 | 1 | 7 | 0 | 11 | 0.1 | 0.0 | 0.3 | 0.0 | 0.4 |
| Station 3 | 200-300 | 1 | 0 | 5 | 5 | 11 | 0.0 | 0.0 | 0.2 | 0.2 | 0.4 |
| Station 4 | 0-50 | 3 | 51 | 15 | 7 | 76 | 0.2 | 4.0 | 1.2 | 0.5 | 6.0 |
| Station 4 | 50-100 | 2 | 4 | 3 | 14 | 23 | 0.2 | 0.3 | 0.2 | 1.1 | 1.8 |
| Station 4 | 100-200 | 1 | 2 | 1 | 3 | 7 | 0.0 | 0.1 | 0.0 | 0.1 | 0.3 |
| Station 4 | 200-300 | 0 | 2 | 14 | 8 | 24 | 0.0 | 0.1 | 0.5 | 0.3 | 0.9 |
| Station 5 | 0-50 | 5 | 94 | 13 | 18 | 130 | 0.4 | 7.4 | 1.0 | 1.4 | 10.2 |
| Station 5 | 50-100 | 1 | 8 | 9 | 142 | 160 | 0.1 | 0.6 | 0.7 | 11.1 | 12.5 |
| Station 5 | 100-200 | 0 | 0 | 3 | 1 | 4 | 0.0 | 0.0 | 0.1 | 0.0 | 0.2 |
| Station 5 | 200-300 | 0 | 1 | 3 | 3 | 7 | 0.0 | 0.0 | 0.1 | 0.1 | 0.3 |
| Station 6 | 0-50 | 8 | 91 | 80 | 93 | 272 | 0.6 | 7.1 | 1.3 | 7.3 | 21.3 |
| Station 6 | 50-100 | 25 | 16 | 25 | 17 | 83 | 2.0 | 1.3 | 9.2 | 1.3 | 6.5 |
| Station 6 | 100-200 | 0 | 3 | 9 | 8 | 20 | 0.0 | 0.1 | 7.1 | 0.3 | 0.8 |
| Station 6 | 200-300 | 0 | 6 | 65 | 2 | 73 | 0.0 | 0.2 | 6.8 | 0.1 | 2.9 |
| Station 7 |  |  |  |  |  |  |  |  |  |  |  |
| Station 7 | 50-100 | 4 | 18 | 1 | 2 | 25 | 0.3 | 1.4 | 0.1 | 0.2 | 2.0 |
| Station 7 | 100-200 | 2 | 1 | 0 | 0 | 3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 |
| Station 7 | 200-300 | 0 | 0 | 5 | 6 | 11 | 0.0 | 0.0 | 0.2 | 0.2 | 0.4 |

Supplementary table 2. Counts of pteropods per size fraction and depth with the associated absolute abundance.