Supplement of

The distinct roles of two intertidal foraminiferal species in phytodetrital carbon and nitrogen fluxes – results from laboratory feeding experiments

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### Table S1. Raw data of EA-IRMA of Foraminiferal samples of Paper 4 (n.a. = natural abundance, data for 5.5 P from Paper 3).

<table>
<thead>
<tr>
<th>Food source</th>
<th>T</th>
<th>Treatment</th>
<th>N/Ind</th>
<th>Weight [mg]</th>
<th>( \delta^{15}N/\delta^{14}N )</th>
<th>ATM 15N/ATM 14N</th>
<th>( \delta^{13}C/\delta^{12}C )</th>
<th>ATM 13C/ATM 12C</th>
<th>µg N</th>
<th>µg C</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.5 P</td>
<td>24 hrs fed</td>
<td>48</td>
<td>1.250</td>
<td>425.11</td>
<td>0.521</td>
<td>3.82</td>
<td>1.109</td>
<td>8.85</td>
<td>51.58</td>
<td></td>
</tr>
<tr>
<td>5.5 P</td>
<td>24 hrs fed</td>
<td>52</td>
<td>1.277</td>
<td>416.26</td>
<td>0.518</td>
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<td>-</td>
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<tr>
<td>5.5 P</td>
<td>24 hrs fed</td>
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<td>0.963</td>
<td>328.42</td>
<td>0.486</td>
<td>-0.42</td>
<td>1.105</td>
<td>7.75</td>
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<td>1.284</td>
<td>323.13</td>
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<td>0.39</td>
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<td>-2.90</td>
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<td>5.5 P</td>
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</tbody>
</table>

#### Notes:
- The table contains data on the isotopic compositions of foraminiferal samples, with columns for different food sources, treatments, and measured parameters such as nitrogen abundance, carbon abundance, and weights. The data is presented in a tabular format with columns for different food sources, treatments, nitrogen and carbon abundances, and weights. The isotopic compositions are given in parts per thousand (‰) for nitrogen and carbon. The weights are expressed in milligrams (mg).
- The data is presented for different temperatures and treatments, such as 24 hours fed or starved, with natural abundance (n.a.) also included.
- The table includes a comparison of nitrogen and carbon abundances across different samples, with some samples showing higher abundances than others.

### Additional Notes:
- The data is used to study the effects of different food sources and treatments on the isotopic compositions of foraminiferal samples, which can provide insights into the metabolic processes and environmental conditions experienced by these ancient marine organisms.
Table S2. Raw data of GC-IRMS of water samples.

<table>
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<tr>
<th>Food Source</th>
<th>T</th>
<th>avg d13C/12C</th>
<th>avg AT% 13C/12C</th>
<th>ppm CO2</th>
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<tr>
<td>H3PO4</td>
<td>-</td>
<td>-18.734</td>
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<td>H3PO4 + SW</td>
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<td>He</td>
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</table>
Supplementary Figure 1. a) Light microscope image of fresh picked *A. tepida* specimens (scale bar = 500 μm). b) *A. tepida* after feeding on fresh microalgae. c) Fresh picked *H. germanica* specimens (scale bar = 500 μm). d) *H. germanica* individual (scale bar = 200 μm). e)-h) SEM images of *A. tepida* collected in 2014 at the sampling location of this study (scale bar = 200 μm). i)-j) *H. germanica* collected in 2014 at the sampling location of this study (scale bar = 200 μm). k)-l) *A. tepida* collected in 2016 at the sampling location of this study (scale bar = 200 μm). m) *H. germanica* collected in 2016 at the sampling location of this study (scale bar = 200 μm).