

The following supplement accompanies the article

Benthic microalgal variability associated with peritidal stromatolite microhabitats along the South African coast

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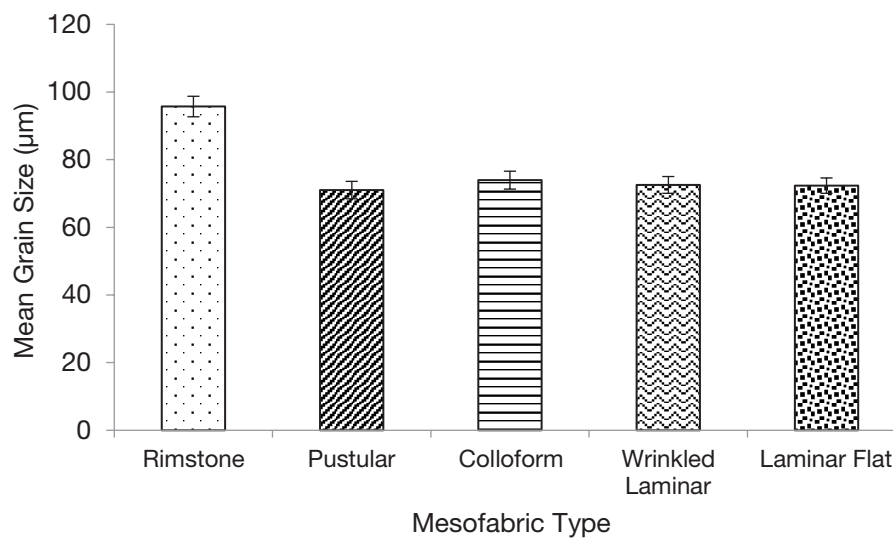


Figure S1. Mean grain size measured for each mesofabric type at three stromatolite pools along the South African coastline near Port Elizabeth, during September 2015 (end of winter) and January 2016 (summer).

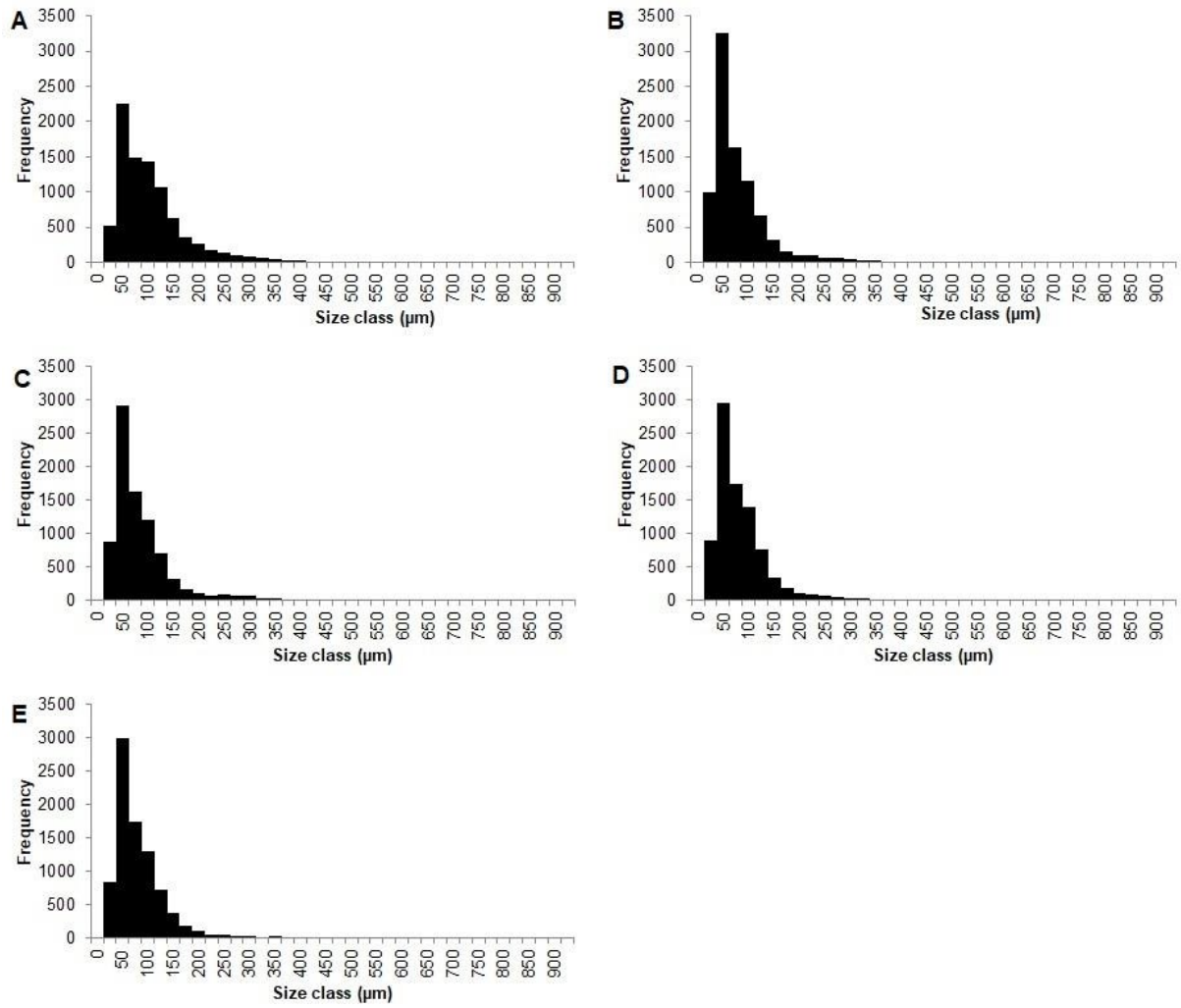


Figure S2. Frequency histogram of the different grain size classes of each mesofabric type at three stromatolite pools along the South African coastline near Port Elizabeth, during September 2015 (end of winter) and January 2016 (summer). A – Rimstone, B – Pustular, C – Colloform, D – Laminar flat, E – Wrinkled laminar.

Table S1: The percentage counts for each sediment size class for each mesofabric type at three stromatolites pools along the South African coastline near Port Elizabeth, during September 2015 (end of winter) and January 2016 (summer).

| Rimstone | | Pustular | | Colloform | | Laminar flat | | Wrinkled laminar | |
|-----------------|--------|-----------------|--------|------------------|--------|---------------------|--------|-------------------------|--------|
| Summer | | Summer | | Summer | | Summer | | Summer | |
| Sand | 24.05% | Sand | 6.19% | Sand | 9.35% | Sand | 7.31% | Sand | 10.26% |
| Silt | 39.07% | Silt | 69.36% | Silt | 64.26% | Silt | 64.76% | Silt | 62.19% |
| Very fine sand | 36.88% | Very fine sand | 24.45% | Very fine sand | 26.39% | Very fine sand | 27.93% | Very fine sand | 27.54% |
| Winter | | Winter | | Winter | | Winter | | Winter | |
| Sand | 21.56% | Sand | 16.30% | Sand | 15.40% | Sand | 15.44% | Sand | 12.97% |
| Silt | 45.55% | Silt | 53.14% | Silt | 51.11% | Silt | 48.23% | Silt | 53.09% |
| Very fine sand | 32.89% | Very fine sand | 30.56% | Very fine sand | 33.48% | Very fine sand | 36.33% | Very fine sand | 33.94% |

Table S2: Mean grain sizes measured in the Exuma Cays, Bahamas from Tarhan *et al.* (2013).

| Mat Type | Description | Mean grain size (μm) |
|--------------------|--|---|
| Type A | Well-laminated and occurs intertidally. | 224 |
| Type B | Well-Laminated and found in close proximity to type A. | 218,5 |
| Type D | Well-laminated and found peritidally. | 144 |
| Thrombolite | Not stromatolite. Clotted mesofabric and occurring intertidally. | 221 |

Table S3: The minimum, median and maximum grain sizes measured for each mesofabric type at three stromatolites pools along the South African coastline near Port Elizabeth, during September 2015 (end of winter) and January 2016 (summer).

| Mesofabric type | Minimum | Median | Maximum |
|-------------------------|------------------|------------------|-------------------|
| Rimstone | 12 μm | 77 μm | 762 μm |
| Pustular | 11 μm | 52 μm | 868 μm |
| Colloform | 11 μm | 57 μm | 757 μm |
| Laminar Flat | 10 μm | 55 μm | 651 μm |
| Wrinkled Laminar | 11 μm | 55 μm | 814 μm |