**Supplementary Table S2. Relative % contributions to different sediment grain size fractions by each algal species and by seagrass epiphytes following breakdown experiments. n = 3 per species (except for *Thalassia* epiphytes which was based on a single bulk sample).**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *H. incrassata* | *R. phoenix* | *P. capitatus* | *P. dumetosus* | *U. flabellum* | *U. cyathiformis* | *A. calyculus* | *Thalassia* epibionts |
| Size fraction | Mean (%) | SD | Mean (%) | SD | Mean (%) | SD | Mean (%) | SD | Mean (%) | SD | Mean (%) | SD | Mean (%) | SD | Mean (%) | SD |
| >4mm | 35.72 | 11.63 | 0.06 | 0.10 | 1.06 | 1.06 | 0.00 | 0.00 | 0.59 | 0.67 | 0.70 | 0.99 | 0.00 | 0.00 | 0.00 | N/a |
| 2-4mm | 23.00 | 0.94 | 0.87 | 0.20 | 3.27 | 2.56 | 0.09 | 0.08 | 1.64 | 0.77 | 2.01 | 1.43 | 0.53 | 0.69 | 0.00 | N/a |
| 1-2mm | 5.32 | 1.58 | 1.13 | 0.65 | 1.40 | 0.60 | 0.50 | 0.05 | 2.25 | 2.18 | 1.93 | 0.45 | 1.76 | 0.97 | 0.00 | N/a |
| 0.5-1mm | 2.10 | 0.63 | 2.18 | 0.86 | 2.09 | 0.14 | 2.17 | 0.23 | 1.62 | 0.99 | 2.34 | 0.33 | 3.72 | 2.08 | 0.30 | N/a |
| 250-500 µm | 0.86 | 0.33 | 4.41 | 1.78 | 2.11 | 0.90 | 13.46 | 4.93 | 3.93 | 4.58 | 2.36 | 0.91 | 9.61 | 6.02 | 11.05 | N/a |
| 125-250 µm | 0.72 | 0.41 | 11.97 | 4.60 | 2.51 | 1.19 | 34.25 | 7.14 | 3.84 | 2.52 | 4.86 | 1.64 | 6.86 | 2.42 | 15.44 | N/a |
| 63-125 µm | 0.72 | 0.43 | 18.21 | 6.43 | 12.59 | 3.45 | 21.85 | 3.60 | 8.30 | 3.75 | 7.49 | 0.36 | 9.96 | 1.73 | 23.19 | N/a |
| 32-63 µm | 1.00 | 0.68 | 20.99 | 2.64 | 31.52 | 3.30 | 10.59 | 1.18 | 16.04 | 1.74 | 19.56 | 9.87 | 7.74 | 0.38 | 35.49 | N/a |
| <32 µm | 30.57 | 7.43 | 40.18 | 2.04 | 43.44 | 2.08 | 17.10 | 6.22 | 61.79 | 10.90 | 58.75 | 8.71 | 59.83 | 6.75 | 14.51 | N/a |