APPENDIX 2

Table 1S. Average + Standard deviation (SD) in characters of the sediment collected inside three patches in meadow of *Halodule wrightii* in Barra Grande beach, Piauí State, northeastern Brazil. Graind diameter and Degree of selection are in phi scale (ϕ).

|  |  |  |  |
| --- | --- | --- | --- |
| **Sediment** | **Average ± SD** | | |
| **Patch A** | **Patch B** | **Patch C** |
| Grain diameter (ϕ) | 1,57 ± 1,0 | 2,15 ± 0,47 | 2,36 ± 0,83 |
| Degree of selection (ϕ) | 2,67 ± 0,69 | 1,52 ± 0,82 | 2,23 ± 0,92 |
| Gravel | 13,0 ± 8,26 | 4,05 ± 3,15 | 8,62 ± 8,0 |
| Sand | 76,1 ± 9,49 | 91,30± 4,78 | 81,2 ± 8,45 |
| Mud | 10,7 ± 6,61 | 4,64 ± 2,44 | 10,0 ± 5,51 |
| Organic matter | 2,96 ± 1,4 | 3,09 ± 0,83 | 4,06 ± 1,33 |

Table 2S. Average ± Standard deviation (SD) the characters the *Halodule wrightii* in three patches of the meadow in Barra Grande beach, Piauí State, northeastern Brazil.

|  |  |  |  |
| --- | --- | --- | --- |
| **Biomass** | **Average ± SD** | | |
| **Patch A** | **Patch B** | **Patch C** |
| Aboveground | 62,6 ± 42,8 | 55,7 ± 53,5 | 68,66 ± 44,4 |
| Belowground | |  | | --- | | 308,1 ± 154,4 | |  | |  | | 250,2 ± 138,3 | 229,2 ± 98,6 |
| Shoot density | 5.749± 1.747 | 6.193 ± 2.087 | 6.101 ± 2.410 |

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**Table 3S.** SIMPER calculates the contribution of each species to the overall dissimilarity (Bray-Curtis) among groups. Gastropod species that contributed most (at least 70%) to the differences among patches and between seasons.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Average contribution** | | **Cummulative contribution** | **Mean abundance in Group 1** | **Mean abundance in Group 2** |
| **Between Patches A and B** |  | |  |  |  |
| *Neritina virginea* | 0.24±0.18 | | 0.32 | 1.95 | 0.02 |
| *Eulithidium pterocladicum* | 0.14±0.12 | | 0.50 | 1.52 | 1.12 |
| *Alaba incerta* | 0.12±0.12 | | 0.66 | 0.91 | 0.87 |
| *Smaragdia viridis* | 0.11±0.11 | | 0.81 | 0.74 | 0.90 |
| **Between Patches A and C** |  | |  |  |  |
| *Neritina virginea* | 0.25±0.18 | | 0.33 | 1.95 | 0.00 |
| *Eulithidium pterocladicum* | 0.14±0.12 | | 0.51 | 1.52 | 1.23 |
| *Alaba incerta* | 0.12±0.12 | | 0.66 | 0.91 | 0.67 |
| *Smaragdia viridis* | 0.11±0.11 | | 0.80 | 0.74 | 0.78 |
| **Between Patches B and C** |  | |  |  |  |
| *Eulithidium pterocladicum* | 0.18±0.15 | | 0.25 | 1.12 | 1.23 |
| *Smaragdia viridis* | 0.14±0.13 | | 0.45 | 0.90 | 0.78 |
| *Alaba incerta* | 0.14±0.13 | | 0.64 | 0.87 | 0.67 |
| *Bulla striata* (young) | 0.04±0.10 | | 0.70 | 0.08 | 0.18 |
| **Between dry and rainy seasons** | |  |  |  |  |
| *Eulithidium pterocladicum* | 0.16±0.13 | | 0.21 | 0.83 | 1.67 |
| *Neritina virginea* | 0.15±0.16 | | 0.40 | 1.22 | 0.43 |
| *Alaba incerta* | 0.14±0.13 | | 0.59 | 0.14 | 1.33 |
| *Smaragdia viridis* | 0.14±0.13 | | 0.77 | 0.26 | 1.20 |

**Table 4S.** SIMPER calculates the contribution of each species to the overall dissimilarity (Bray-Curtis) among groups. Bivalve species that contributed most (at least 70%) to the differences among patches and between seasons.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Average contribution** | **Cummulative contribution** | **Mean abundance in Group 1** | **Mean abundance in Group 2** |
| **Between Patches A and B** |  |  |  |  |
| *Nucula brasiliana* | 0.11±0.16 | 0.12 | 0.39 | 0.16 |
| *Sphenia fragilis* | 0.11±0.15 | 0.25 | 0.10 | 0.39 |
| *Anomalocardia brasiliana* | 0.11±0.18 | 0.37 | 0.37 | 0.00 |
| *Tellina tayloriana* | 0.07±0.13 | 0.45 | 0.23 | 0.16 |
| *Pinctada imbricata* | 0.06±0.14 | 0.52 | 0.18 | 0.07 |
| *Parvilucina pectinella* | 0.06±0.13 | 0.58 | 0.05 | 0.16 |
| *Diplodonta sp* | 0.05±0.12 | 0.64 | 0.16 | 0.05 |
| *Tellina angulosa* | 0.05±0.13 | 0.70 | 0.09 | 0.11 |
| *Tellina alternata* | 0.05±0.11 | 0.76 | 0.16 | 0.11 |
| **Between Patches A and C** | |  |  |  |
| *Anomalocardia brasiliana* | 0.11±0.18 | 0.12 | 0.37 | 0.00 |
| *Nucula brasiliana* | 0.11±0.15 | 0.24 | 0.39 | 0.12 |
| *Pinctada imbricata* | 0.1±0.16 | 0.35 | 0.18 | 0.26 |
| *Sphenia fragilis* | 0.1±0.16 | 0.45 | 0.10 | 0.29 |
| *Parvilucina pectinella* | 0.07±0.14 | 0.52 | 0.05 | 0.20 |
| *Tellina tayloriana* | 0.06±0.12 | 0.58 | 0.23 | 0.00 |
| *Diplodonta sp* | 0.05±0.11 | 0.63 | 0.16 | 0.03 |
| *Tellina alternata* | 0.05±0.11 | 0.68 | 0.16 | 0.04 |
| *Chione subrostrata* | 0.04±0.11 | 0.72 | 0.12 | 0.00 |
| **Between Patches B and C** | |  |  |  |
| *Sphenia fragilis* | 0.16±0.19 | 0.18 | 0.39 | 0.29 |
| *Pinctada imbricata* | 0.1±0.19 | 0.29 | 0.07 | 0.26 |
| *Parvilucina pectinella* | 0.1±0.17 | 0.40 | 0.16 | 0.20 |
| *Nucula brasiliana* | 0.08±0.16 | 0.49 | 0.16 | 0.12 |
| *Mactra fragilis* | 0.06±0.13 | 0.55 | 0.11 | 0.12 |
| *Cumingia coarctata* | 0.05±0.13 | 0.61 | 0.11 | 0.07 |
| *Divalinga quadrisulcata* | 0.04±0.1 | 0.66 | 0.16 | 0.03 |
| *Tellina angulosa* | 0.04±0.13 | 0.71 | 0.11 | 0.00 |
| **Between dry and rainy seasons** | |  |  |  |
| *Sphenia fragilis* | 0.11±0.17 | 0.12 | 0.28 | 0.17 |
| *Nucula brasiliana* | 0.1±0.15 | 0.23 | 0.18 | 0.31 |
| *Pinctada imbricata* | 0.09±0.16 | 0.33 | 0.09 | 0.28 |
| *Anomalocardia brasiliana* | 0.09±0.16 | 0.43 | 0.22 | 0.13 |
| *Parvilucina pectinella* | 0.07±0.14 | 0.50 | 0.12 | 0.12 |
| *Tellina tayloriana* | 0.06±0.12 | 0.56 | 0.18 | 0.09 |
| *Tellina alternata* | 0.05±0.11 | 0.61 | 0.09 | 0.13 |
| *Diplodonta sp* | 0.04±0.11 | 0.66 | 0.09 | 0.10 |
| *Mactra fragilis* | 0.04±0.1 | 0.70 | 0.11 | 0.02 |