**Table S2.** Blast results for all specimens used in this study

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Query | Description | GenBank ID | Similarity (%) | e-value |
| Polycladida, Bathtub beach (outgroup) | *Chromyella* sp. n. CEL-2014  | *KC869848.1* | 89.5 | 0 |
| Proseriata sp., ind 10, site 1, Armação | *Kata evelinae* isolate KBBR1  | *KJ682385.1* | 94.2 | 0 |
| Proseriata sp., ind 12, site 1, Armação | *Kata evelinae* isolate KBBR1  | *KJ682385.1* | 94.1 | 0 |
| Proseriata sp., ind 4, site 1, Armação | *Kata evelinae* isolate KBBR1  | *KJ682385.1* | 94.2 | 0 |
| Proseriata sp., ind 7, site 1, Armação | *Kata evelinae* isolate KBBR1  | *KJ682385.1* | 94.2 | 0 |
| Proseriata sp., ind 1, site 3, Armação | *Kata evelinae* isolate KBBR1  | *KJ682385.1* | 94.2 | 0 |
| Proseriata sp., ind 11, site 3, Armação | *Kata evelinae* isolate KBBR1  | *KJ682385.1* | 94.2 | 0 |
| Proseriata sp., ind 3, site 3, Armação | *Kata evelinae* isolate KBBR1 | *KJ682385.1* | 94.2 | 0 |
| Proseriata sp., ind 6, site 3, Armação | *Kata evelinae* isolate KBBR1  | *KJ682385.1* | 94.2 | 0 |
| Proseriata sp., ind 7, site 3, Armação | *Kata evelinae* isolate KBBR1  | *KJ682385.1* | 94.1 | 0 |
| Proseriata sp., ind 4, Bathtub beach | *Kata* sp. n. 1 FS-2014 isolate KNSPNA2  | *KJ682389.1* | 94.7 | 0 |
| Proseriata sp., ind 5, Bathtub beach | *Parotoplana ambrosolii* isolate PACM1  | *KC971066.1* | 87.8 | 0 |
| Proseriata sp., ind 1, site 1, Baía Caravela | *Meidiama lutheri* isolate MDLBR2  | *KY320134.1* | 99 | 0 |
| Proseriata sp., ind 2, site 1, Estaleiro | *Kata leroda* isolate KSBR1  | *KJ682387.1* | 100 | 0 |
| Proseriata sp., ind 5, site 1, Estaleiro | *Kata leroda* isolate KSBR1  | *KJ682387.1* | 100 | 0 |
| Proseriata sp., ind 6, site 1, Estaleiro | *Kata leroda* isolate KSBR1  | *KJ682387.1* | 100 | 0 |
| Proseriata sp., ind 7, site 1, Estaleiro | *Kata leroda* isolate KSBR1  | *KJ682387.1* | 100 | 0 |
| Proseriata sp., ind 8, site 1, Estaleiro | *Kata leroda* isolate KSBR1  | *KJ682387.1* | 99.9 | 0 |
| Proseriata sp., ind 5, site 1, Joaquina | *Nematoplana* sp. Shelly River  | *AY157160.1* | 84.8 | 1.56E-172 |
| Proseriata sp., ind 7, site 1, Joaquina | *Archotoplana holotricha* partial 28S rRNA gene | *AJ270165.1* | 80.6 | 5.56E-152 |
| Proseriata sp., ind 9, site 1, Joaquina | *Archotoplana holotricha* partial 28S rRNA gene | *AJ270165.1* | 80.6 | 5.56E-152 |
| Proseriata sp., ind 2, site 2, Joaquina | *Archotoplana holotricha* partial 28S rRNA gene | *AJ270165.1* | 80.6 | 5.56E-152 |
| Proseriata sp., ind 6, site 2, Joaquina | *Nematoplana* sp. Shelly River  | *AY157160.1* | 86.2 | 0 |
| Proseriata sp., ind 2, site 3, Joaquina | *Archotoplana holotricha* partial 28S rRNA gene | *AJ270165.1* | 80.6 | 5.56E-152 |
| Proseriata sp., ind 3, site 3, Joaquina | *Kata leroda* isolate KSBR1  | *KJ682387.1* | 99.9 | 0 |
| Proseriata sp., ind 7, site 3, Joaquina | *Kata leroda* isolate KSBR1  | *KJ682387.1* | 100 | 0 |
| Proseriata sp., ind 2, site 4, Praia Vermelha | *Kata evelinae* isolate KBBR1  | *KJ682385.1* | 94.2 | 0 |
| Proseriata sp., ind 1, site 5, Praia Vermelha | *Kata leroda* isolate KSBR1  | *KJ682387.1* | 99.4 | 0 |
| Proseriata sp., ind 5, site 5, Praia Vermelha | *Kata evelinae* isolate KBBR1  | *KJ682385.1* | 94.2 | 0 |
| Proseriata sp., ind 9, site 5, Praia Vermelha | *Kata leroda* isolate KSBR1  | *KJ682387.1* | 100 | 0 |
| Proseriata sp., ind 1, site 6, Praia Vermelha | *Kata leroda* isolate KSBR1  | *KJ682387.1* | 99.5 | 0 |
| Proseriata sp., ind 2, site 6, Praia Vermelha | *Kata leroda* isolate KSBR1  | *KJ682387.1* | 100 | 0 |
| Proseriata sp., ind 3, site 6, Praia Vermelha | *Kata leroda* isolate KSBR1  | *KJ682387.1* | 100 | 0 |

Table shows the query sequence’s ID, the description of the best hit and the associated similarity score, and evalue (cut-off < 10-³) for each hit.