Suplementary Material of Diversity paper - Tables

**Table 1.** Species presence data by genus across the sampled locations.Families belonging to the order “Anthoathecata” are highlighted in bold. Species occurrences were grouped into grid cells and then assigned to four regions: UR/AR, Uruguay–Argentina; BR, Brazil; CA, Caribbean; PA, Patagonia.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| GENERA | UR/AR | BR | CA | PA | SUM | SAMPLES |
| *Sertularella* | 19 | 11 | 8 | 16 | 54 | 108 |
| *Symplectoscyphus* | 15 | 1 | 1 | 12 | 29 | 58 |
| *Halecium* | 8 | 10 | 5 | 4 | 27 | 54 |
| *Clytia* | 5 | 11 | 8 | 2 | 26 | 52 |
| *Aglaophenia* | 1 | 8 | 8 | 0 | 17 | 34 |
| ***Bougainvillia*** | 4 | 7 | 3 | 3 | 17 | 34 |
| ***Eudendrium*** | 1 | 8 | 4 | 4 | 17 | 34 |
| *Obelia* | 5 | 5 | 3 | 4 | 17 | 34 |
| *Plumularia* | 2 | 8 | 4 | 3 | 17 | 34 |
| *Nemertesia* | 3 | 3 | 6 | 3 | 15 | 30 |
| *Halopteris* | 1 | 9 | 4 | 0 | 14 | 28 |
| *Staurotheca* | 2 | 0 | 0 | 12 | 14 | 28 |
| *Orthopyxis* | 2 | 5 | 1 | 5 | 13 | 26 |
| *Campanularia* | 4 | 3 | 1 | 4 | 12 | 24 |
| *Dynamena* | 1 | 6 | 4 | 1 | 12 | 24 |
| *Amphisbetia* | 3 | 3 | 1 | 4 | 11 | 22 |
| *Filellum* | 4 | 1 | 1 | 5 | 11 | 22 |
| *Acryptolaria* | 3 | 1 | 4 | 2 | 10 | 20 |
| *Tridentata* | 0 | 7 | 3 | 0 | 10 | 20 |
| *Thyroscyphus* | 1 | 5 | 3 | 0 | 9 | 18 |
| *Antennella* | 0 | 6 | 2 | 0 | 8 | 16 |
| *Macrorhynchia* | 0 | 4 | 4 | 0 | 8 | 16 |
| ***Corymorpha*** | 2 | 4 | 0 | 1 | 7 | 14 |
| *Hebella* | 3 | 3 | 0 | 1 | 7 | 14 |
| *Diphasia* | 1 | 2 | 3 | 0 | 6 | 12 |
| ***Coryne*** | 1 | 2 | 1 | 1 | 5 | 10 |
| ***Ectopleura*** | 1 | 3 | 0 | 1 | 5 | 10 |
| *Gymnangium* | 0 | 3 | 2 | 0 | 5 | 10 |
| ***Hybocodon*** | 3 | 0 | 0 | 2 | 5 | 10 |
| *Kirchenpaueria* | 1 | 1 | 1 | 2 | 5 | 10 |
| *Lafoea* | 1 | 1 | 2 | 1 | 5 | 10 |
| *Lytocarpia* | 2 | 1 | 1 | 1 | 5 | 10 |
| *Phialella* | 2 | 1 | 0 | 2 | 5 | 10 |
| *Schizotricha* | 1 | 0 | 0 | 4 | 5 | 10 |
| ***Zanclea*** | 0 | 2 | 3 | 0 | 5 | 10 |
| ***Amphinema*** | 1 | 2 | 1 | 0 | 4 | 8 |
| *Hincksella* | 0 | 2 | 2 | 0 | 4 | 8 |
| ***Hydractinia*** | 1 | 1 | 2 | 0 | 4 | 8 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Laomedea* | 1 | 1 | 1 | 1 | 4 | 8 |
| *Monostaechas* | 1 | 2 | 1 | 0 | 4 | 8 |
| *Oswaldella* | 1 | 0 | 0 | 3 | 4 | 8 |
| *Synthecium* | 1 | 1 | 1 | 1 | 4 | 8 |
| *Calycella* | 1 | 1 | 0 | 1 | 3 | 6 |
| *Dentitheca* | 0 | 1 | 2 | 0 | 3 | 6 |
| *Nemalecium* | 0 | 1 | 2 | 0 | 3 | 6 |
| *Parascyphus* | 1 | 0 | 0 | 2 | 3 | 6 |
| ***Podocoryna*** | 0 | 3 | 0 | 0 | 3 | 6 |
| *Sertularelloides* | 1 | 1 | 1 | 0 | 3 | 6 |
| *Sertularia* | 0 | 3 | 0 | 0 | 3 | 6 |
| ***Stauridiosarsia*** | 0 | 3 | 0 | 0 | 3 | 6 |
| *Abietinella* | 1 | 0 | 0 | 1 | 2 | 4 |
| ***Bimeria*** | 1 | 1 | 0 | 0 | 2 | 4 |
| *Calamphora* | 0 | 1 | 1 | 0 | 2 | 4 |
| *Cirrholovenia* | 0 | 1 | 1 | 0 | 2 | 4 |
| *Cladocarpus* | 0 | 0 | 2 | 0 | 2 | 4 |
| ***Cordylophora*** | 1 | 1 | 0 | 0 | 2 | 4 |
| *Grammaria* | 1 | 0 | 0 | 1 | 2 | 4 |
| *Hartlaubella* | 1 | 0 | 0 | 1 | 2 | 4 |
| *Idiellana* | 0 | 1 | 1 | 0 | 2 | 4 |
| *Lovenella* | 0 | 2 | 0 | 0 | 2 | 4 |
| *Monotheca* | 1 | 1 | 0 | 0 | 2 | 4 |
| ***Parawrightia*** | 0 | 1 | 0 | 1 | 2 | 4 |
| ***Pennaria*** | 0 | 1 | 1 | 0 | 2 | 4 |
| *Ptychogena* | 1 | 0 | 0 | 1 | 2 | 4 |
| ***Ralpharia*** | 0 | 1 | 1 | 0 | 2 | 4 |
| ***Rhizogeton*** | 1 | 1 | 0 | 0 | 2 | 4 |
| *Salacia* | 0 | 2 | 0 | 0 | 2 | 4 |
| *Scandia* | 0 | 1 | 1 | 0 | 2 | 4 |
| *Silicularia* | 1 | 0 | 0 | 1 | 2 | 4 |
| ***Solanderia*** | 0 | 1 | 1 | 0 | 2 | 4 |
| *Stegella* | 1 | 0 | 0 | 1 | 2 | 4 |
| *Thuiaria* | 0 | 1 | 1 | 0 | 2 | 4 |
| *Zygophylax* | 0 | 1 | 1 | 0 | 2 | 4 |
| ***Zyzzyzus*** | 0 | 1 | 1 | 0 | 2 | 4 |
| *Callicarpa* | 0 | 1 | 0 | 0 | 1 | 3 |
| *Aglaophenopsis* | 0 | 0 | 0 | 1 | 1 | 2 |
| *Antarctoscyphus* | 0 | 0 | 0 | 1 | 1 | 2 |
| *Anthohebella* | 0 | 1 | 0 | 0 | 1 | 2 |
| *Antomma* | 0 | 0 | 1 | 0 | 1 | 2 |
| ***Asyncoryne*** | 0 | 1 | 0 | 0 | 1 | 2 |
| *Bicaularia* | 0 | 0 | 1 | 0 | 1 | 2 |
| *Billardia* | 0 | 0 | 0 | 1 | 1 | 2 |
| ***Bouillonactinia*** | 0 | 1 | 0 | 0 | 1 | 2 |
| ***Calyptospadix*** | 0 | 1 | 0 | 0 | 1 | 2 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Cladocarpoides* | 0 | 0 | 1 | 0 | 1 | 2 |
| ***Cladocoryne*** | 0 | 1 | 0 | 0 | 1 | 2 |
| ***Corydendrium*** | 0 | 1 | 0 | 0 | 1 | 2 |
| *Cryptolaria* | 0 | 0 | 1 | 0 | 1 | 2 |
| *Eutima* | 0 | 1 | 0 | 0 | 1 | 2 |
| *Geminella* | 0 | 1 | 0 | 0 | 1 | 2 |
| *Gonothyraea* | 1 | 0 | 0 | 0 | 1 | 2 |
| *Halisiphonia* | 0 | 0 | 0 | 1 | 1 | 2 |
| *Hydrallmania* | 0 | 0 | 1 | 0 | 1 | 2 |
| *Hydranthea* | 0 | 1 | 0 | 0 | 1 | 2 |
| ***Hydrocoryne*** | 0 | 1 | 0 | 0 | 1 | 2 |
| *Hydrodendron* | 0 | 0 | 0 | 1 | 1 | 2 |
| *Modeeria* | 0 | 0 | 0 | 1 | 1 | 2 |
| *Monostaechoides* | 0 | 0 | 1 | 0 | 1 | 2 |
| ***Myrionema*** | 0 | 0 | 1 | 0 | 1 | 2 |
| ***Pachycordyle*** | 0 | 0 | 1 | 0 | 1 | 2 |
| ***Pinushydra*** | 0 | 1 | 0 | 0 | 1 | 2 |
| *Pycnotheca* | 0 | 1 | 0 | 0 | 1 | 2 |
| *Sarsia* | 1 | 0 | 0 | 0 | 1 | 2 |
| ***Sphaerocoryne*** | 0 | 0 | 1 | 0 | 1 | 2 |
| *Symmetroscyphus* | 0 | 0 | 1 | 0 | 1 | 2 |

**Table 2**. Species presence data by family across the sampled locations. Families belonging to the order “Anthoathecata” are highlighted in bold. Species occurrences were grouped into grid cells and then assigned to four regions: UR/AR, Uruguay–Argentina; BR, Brazil; CA, Caribbean; PA, Patagonia.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| FAMILY | UR/AR | BR | CA | PA | SUM | SAMPLES |
| Campanulariidae | 20 | 25 | 14 | 18 | 77 | 231 |
| Sertularellidae | 19 | 12 | 9 | 16 | 56 | 168 |
| Sertulariidae | 5 | 25 | 13 | 5 | 48 | 144 |
| Thyroscyphidae | 18 | 7 | 6 | 14 | 45 | 135 |
| Plumulariidae | 6 | 14 | 13 | 6 | 39 | 119 |
| Aglaopheniidae | 3 | 16 | 18 | 2 | 39 | 117 |
| Haleciidae | 8 | 11 | 7 | 4 | 30 | 90 |
| Lafoeidae | 9 | 3 | 7 | 10 | 29 | 87 |
| Halopterididae | 2 | 17 | 8 | 0 | 27 | 81 |
| **Bougainvilliidae** | 5 | 10 | 4 | 4 | 23 | 69 |
| **Eudendriidae** | 1 | 8 | 5 | 4 | 18 | 54 |
| Staurothecidae | 2 | 0 | 0 | 12 | 14 | 42 |
| **Tubulariidae** | 4 | 5 | 2 | 3 | 14 | 42 |
| Hebellidae | 3 | 5 | 1 | 2 | 11 | 33 |
| Kirchenpaueriidae | 2 | 2 | 1 | 5 | 10 | 30 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Corynidae** | 2 | 5 | 1 | 1 | 9 | 27 |
| **Corymorphidae** | 2 | 5 | 0 | 1 | 8 | 24 |
| **Hydractiniidae** | 1 | 5 | 2 | 0 | 8 | 24 |
| Syntheciidae | 1 | 3 | 3 | 1 | 8 | 24 |
| Campanulinidae | 2 | 1 | 0 | 2 | 5 | 15 |
| Phialellidae | 2 | 1 | 0 | 2 | 5 | 15 |
| Schizotrichidae | 1 | 0 | 0 | 4 | 5 | 15 |
| **Zancleidae** | 0 | 2 | 3 | 0 | 5 | 15 |
| Zygophylacidae | 1 | 1 | 2 | 1 | 5 | 15 |
| Lovenellidae | 0 | 4 | 0 | 0 | 4 | 12 |
| **Pandeidae** | 1 | 2 | 1 | 0 | 4 | 12 |
| **Oceaniidae** | 1 | 2 | 0 | 0 | 3 | 9 |
| **Cirrholoveniidae** | 0 | 1 | 1 | 0 | 2 | 6 |
| **Cordylophoridae** | 1 | 1 | 0 | 0 | 2 | 6 |
| Laodiceidae | 1 | 0 | 0 | 1 | 2 | 6 |
| **Pennariidae** | 0 | 1 | 1 | 0 | 2 | 6 |
| Sertularioidea | 0 | 1 | 1 | 0 | 2 | 6 |
| **Solanderiidae** | 0 | 1 | 1 | 0 | 2 | 6 |
| Symplectoscyphidae | 0 | 0 | 1 | 1 | 2 | 6 |
| **Asyncorynidae** | 0 | 1 | 0 | 0 | 1 | 3 |
| **Cladocorynidae** | 0 | 1 | 0 | 0 | 1 | 3 |
| Eirenidae | 0 | 1 | 0 | 0 | 1 | 3 |
| **Hydrocorynidae** | 0 | 1 | 0 | 0 | 1 | 3 |
| Phylactothecidae | 0 | 0 | 0 | 1 | 1 | 3 |
| **Sphaerocorynidae** | 0 | 0 | 1 | 0 | 1 | 3 |
| **Tiarannidae** | 0 | 0 | 0 | 1 | 1 | 3 |

**Table 3.** AvTD (Average Taxonomic Distinction) and VarTD (Variation of Taxonomic Distinction) values ​​for each sampled plot.

|  |  |  |
| --- | --- | --- |
| SAMPLE | AvTD | VarTD |
| AR1 | 83,33 | 271,5 |
| AR2 | 82,64 | 271,5 |
| AR3 | 82,15 | 306,3 |
| AR4 | 79,76 | 632,1 |
| AR5 | 70,24 | 193,2 |
| AR6 | 76,82 | 285,7 |
| BR1 | 75,55 | 205,7 |
| BR2 | 74,06 | 198,5 |
| BR3 | 75 | 202,4 |
| BR4 | 65,56 | 258 |
| BR5 | 74,08 | 214,7 |
| BR6 | 79,66 | 244,1 |
| BR7 | 65,48 | 206,9 |
| BR8 | 76,76 | 259,5 |
| BR9 | 81,34 | 250,7 |

|  |  |  |
| --- | --- | --- |
| BR10 | 80,06 | 257,8 |
| BR11 | 81,15 | 279,7 |
| BR12 | 74,29 | 184 |
| BR13 | 81,27 | 255,5 |
| BR14 | 84,35 | 280,7 |
| BR15 | 82,97 | 272,1 |
| BR16 | 78,57 | 255,1 |
| BR17 | 82,22 | 239,5 |
| CA1 | 76,47 | 271,5 |
| CA10 | 79,64 | 298,1 |
| CA11 | 70 | 183,3 |
| CA12 | 72,5 | 243,8 |
| CA13 | 76,77 | 275,7 |
| CA14 | 73,11 | 62,7 |
| CA2 | 83,66 | 324,4 |
| CA3 | 91,67 | 138,9 |
| CA4 | 69,64 | 551,7 |
| CA5 | 77,21 | 252,5 |
| CA6 | 74,17 | 157,6 |
| CA7 | 81,67 | 205,6 |
| CA8 | 75 | 0 |
| CA9 | 82,2 | 317,5 |
| PA1 | 72,73 | 74,38 |
| PA8 | 76,84 | 486,3 |
| PA9 | 57,14 | 574 |
| PA10 | 79,76 | 274,9 |
| PA2 | 73,92 | 171,9 |
| PA3 | 75,98 | 311 |
| PA4 | 74,74 | 254,6 |
| PA5 | 75,26 | 238,7 |
| PA6 | 73,19 | 213 |
| PA7 | 57,22 | 572,8 |