**Table S1.** List of ciliates species recorded at the four water layers, including average abundance (ind.cm-2), occurrence and rank by contribution of each species to the average Bray-Curtis similarity at each of the four sampling layers in coastal waters of the Yellow Sea, near Qingdao, northern China during study period. Rk: rank; species in bold: top 7 dominant species by contribution to the ciliate communities at each sampling layer; %: occurrence; *N*: average abundance (–: 0–1, +: 2–25, ++: 26–50, +++: 51–100, ++++: over 100 ind.cm-2).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Species |  | 1m | | | 2m | | | 3.5m | | | 5m | | |
|  |  | *N* | Rk | % | *N* | Rk | % | *N* | Rk | % | *N* | Rk | % |
| *Acineria incurvata* |  | - |  |  | - |  |  | - |  |  | - |  | 10 |
| *Amphisiella annulata* |  | - |  |  | - |  | 10 | - |  |  | - |  |  |
| *Anteholosticha pulchra* |  | ++++ | 3 | 100 | + |  | 20 | - |  |  | - |  |  |
| *Anteholosticha warreni* |  | - |  |  | + | 8 | 70 | - |  | 10 | - |  |  |
| *Apokeronopsis crassa* |  | ++ | 5 | 60 | - |  | 10 | - |  | 10 | - |  |  |
| ***Aspidisca aculeata*** |  | **++** | **6** | **80** | **+++** | **2** | **80** | **++** | **2** | **70** | **+** | **5** | **40** |
| ***Aspidisca leptaspis*** |  | **++++** | **2** | **100** | **+** | **7** | **30** | **+** | **5** | **20** | **+** | **6** | **60** |
| ***Aspidisca magna*** |  | **+** | **10** | **40** | **+++** | **1** | **70** | **+** |  | **40** | **+** | **4** | **40** |
| *Aspidisca orthopogon* |  | + | 8 | 60 | - |  |  | - |  |  | - |  |  |
| ***Aspidisca steini*** |  | **-** |  | **10** | **++** | **5** | **100** | **++** | **1** | **100** | **+++** | **1** | **90** |
| *Coeloperix sleighi* |  | - |  |  | + |  | 20 | + |  | 30 | - |  |  |
| *Cyrtohymena marina* |  | - |  | 10 | - |  |  | - |  |  | - |  |  |
| ***Diophrys appendiculata*** |  | **+** | **11** | **60** | **++** | **3** | **100** | **+** | **3** | **90** | **+** | **7** | **20** |
| *Discocephalus ehrenbergi* |  | - |  | 10 | - |  | 10 | - |  |  | - |  |  |
| *Ephelota crustaceorum* |  | - |  |  | + |  | 10 | - |  |  | - |  |  |
| *Ephelota mammillata* |  | - |  |  | ++ | 6 | 10 | + | 6 | 20 | - |  |  |
| *Ephelota truncata* |  | - |  |  | + |  | 10 | - |  |  | - |  |  |
| *Euplotes charon* |  | - |  |  | - |  | 10 | - |  |  | - |  |  |
| ***Euplotes minuta*** |  | **+** | **9** | **50** | **+** | **9** | **70** | **+** | **7** | **70** | **+** | **3** | **40** |
| *Euplotes raikovi* |  | + |  | 30 | + | 11 | 40 | + | 8 | 40 | + | 2 | 60 |
| *Euplotes rariseta* |  | + | 12 | 50 | + | 12 | 50 | + |  | 10 | - |  |  |
| *Euplotes vannus* |  | + |  | 20 | + |  | 20 | - |  |  | + | 9 | 30 |
| *Hartmannula derouxi* |  | - |  |  | + |  | 40 | - |  |  | - |  |  |
| ***Holosticha bradburyae*** |  | **++++** | **1** | **100** | **++** |  | **90** | **+** | **4** | **40** | **+** | **10** | **10** |
| *Holosticha heterofoissneri* |  | + |  | 20 | - |  |  | - |  |  | - |  |  |
| *Litonotus blattereri* |  | - |  |  | - |  |  | + |  | 30 | - |  |  |
| *Litonotus paracygnus* |  | + |  | 10 | + |  | 30 | + |  | 30 | - |  |  |
| *Litonotus songi* |  | - |  |  | - |  |  | - |  |  | - |  | 10 |
| *Litonotus yinae* |  | - |  |  | - |  | 10 | + |  | 70 | - |  |  |
| *Loxophyllum qiuianum* |  | - |  | 10 | - |  |  | + |  | 30 | - |  |  |
| *Loxophyllum simplex* |  | - |  | 10 | - |  |  | - |  |  | - |  |  |
| *Loxophyllum sinicum* |  | - |  |  | + |  | 50 | - |  | 10 | - |  |  |
| *Metaurostylopsis marina* |  | + |  | 20 | - |  |  | - |  |  | + | 8 | 20 |
| *Metaurostylopsis salina* |  | - |  |  | + |  | 40 | + | 9 | 40 | - |  |  |
| *Metaurostylopsis sinica* |  | + |  | 40 | - |  |  | - |  |  | - |  |  |
| *Orthodonella apohamatus* |  | +++ | 4 | 90 | + | 13 | 60 | - |  |  | - |  |  |
| *Orthodonella gutta* |  | + |  | 30 | - |  |  | - |  |  | - |  |  |
| *Oxytricha saltans* |  | - |  |  | + |  | 20 | + |  | 20 | - |  |  |
| *Protogastrostyla pulchra* |  | + |  | 10 | - |  |  | - |  |  | - |  |  |
| *Psammomitra retractilis* |  | - |  |  | + | 14 | 30 | + | 10 | 20 | - |  | 10 |
| *Pseudoamphisiella alveolata* |  | + |  | 30 | - |  |  | - |  |  | - |  |  |
| *Pseudoamphisiella elongata* |  | - |  |  | + |  | 30 | + |  | 30 | - |  |  |
| *Pseudokeronopsis flava* |  | ++ | 7 | 80 | - |  |  | - |  |  | - |  |  |
| *Pseudokeronopsis rubra* |  | - |  |  | ++ | 4 | 100 | + |  | 20 | - |  | 10 |
| *Pseudovorticella marina* |  | - |  |  | - |  |  | + |  | 20 | - |  |  |
| *Pseudovorticella parafornicata* |  | - |  |  | + | 10 | 30 | - |  |  | - |  |  |
| *Pseudovorticella verrucosa* |  | + |  | 10 | - |  |  | - |  |  | - |  |  |
| *Tachysoma dragescoi* |  | - |  | 10 | - |  |  | - |  |  | - |  |  |
| *Thigmokeronopsis rubra* |  | - |  | 10 | - |  |  | - |  |  | - |  |  |
| *Uronychia binucleata* |  | - |  |  | - |  | 10 | - |  |  | - |  |  |