Supplementary Table 1. The significantly different genera and their relative abundance (%).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Genera |  | seasons |  |  |
|  | spring | summer | fall | winter |
| *Navicula* | 49.07 | 25.93 | 28.58 | 18.44 |
| *Seminavis* | 2.45 | 0.21 | 0.33 | 0.35 |
| *Cylindrotheca* | 0.67 | 3.18 | 2.14 | 1.29 |
| *Nitzschia* | 4.07 | 7.52 | 5.67 | 5.30 |
| *Pseudogomphonema* | 0.98 | 3.48 | 1.91 | 0.59 |
| *Gyrosigm* | 0.28 | 5.82 | 1.55 | 0.06 |
| *Pleurosiga* | 0.16 | 15.08 | 8.17 | 0.39 |
| *Cyclotella* | 0.22 | 7.15 | 2.40 | 0.65 |
| *Entomoneis* | 17.48 | 4.31 | 15.78 | 26.94 |
| *Halamphora* | 1.05 | 0.38 | 0.63 | 2.69 |
| Craticula | 0.59 | 0.43 | 2.09 | 6.01 |
| *Surirella* | 1.55 | 0.03 | 1.71 | 7.85 |



**Figure S1**. ANOSIM statistics given differences in the benthic diatom community. a benthic diatom community dissimilarity among seasons. b the difference of benthic diatom community among different sampling sites.