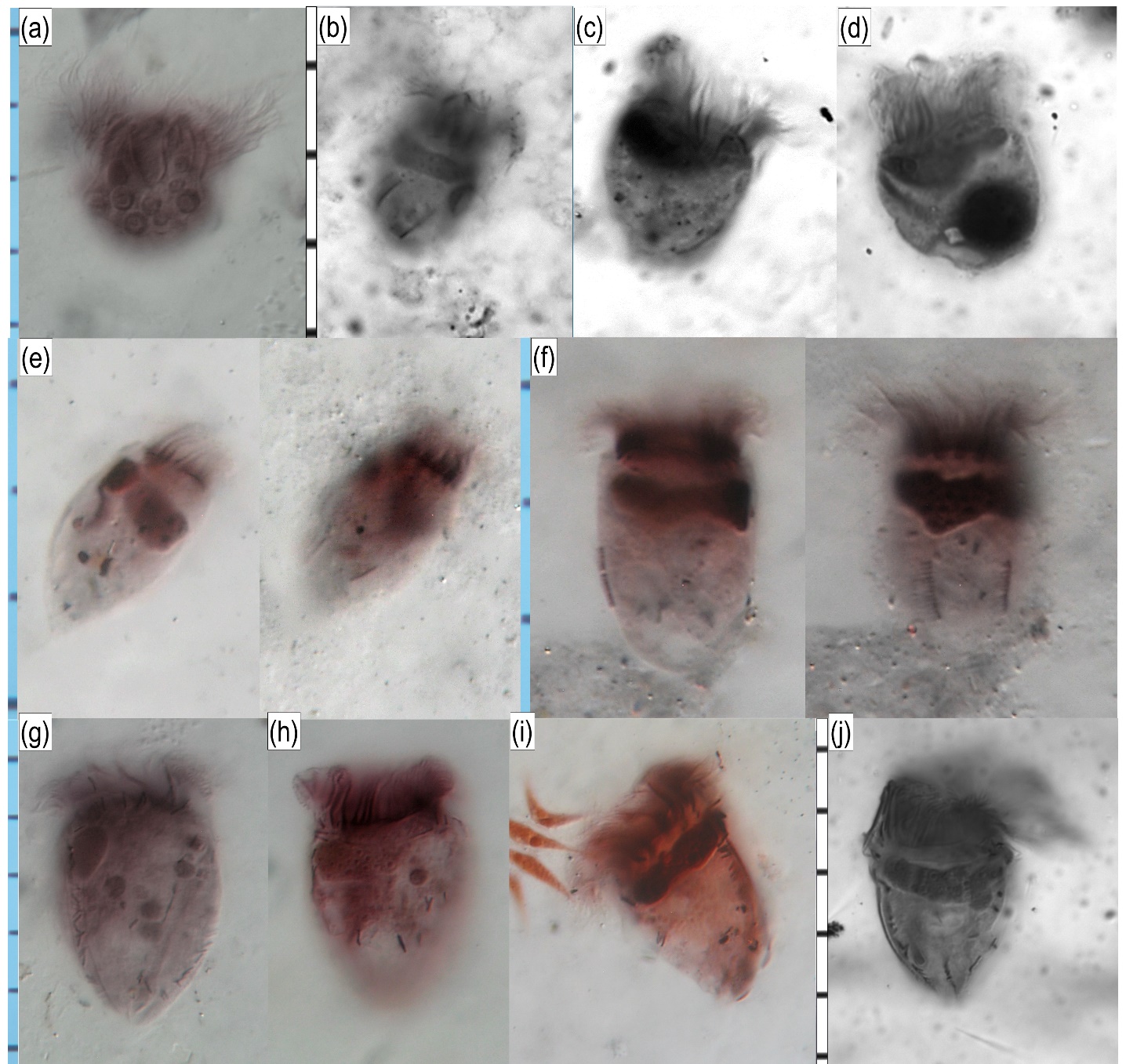
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**Figure S3.** Picoplankton filtering ciliates: **(a)** *Pelagohalteria viridis*; **(b-j)** *Rimostrombidium* spp. Note different size categories. Size bar divided by 10 µm.

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**Figure S2.** Median and interquartile range of data during the periods A and B: **(a), (b)** Dissolved inorganic nitrogen (DIN), and total phosphorus (TP) in the 40 μm-screened sample; **(c), (d)** Modelled water age of the surface 0-3m and below 4 m layers; **(e), (f)** Temperature (T) and dissolved oxygen concentration (DO). Vertical lines mark the median and interquartile range dates when the transition between the mixing and stratification occurs.

**Table 1.** Feeding behaviour grouping of ciliates and their taxonomical position.

|  |  |  |
| --- | --- | --- |
| **Feeding behaviour** | **Family** | **Genus /**  **species** |
| Picoplankton filtering  **PF** | Halteriidae Claparède & Lachmann 1858 | *Halteria grandinella* (Müller, 1773)  *Halteria* — mixotrophic  [*Pelagohalteria viridis* (Fromentel, 1876)](https://bie.ala.org.au/species/7e038e4ff1868ace88a3b8089062385b) |
| Strobilidiidae Kahl in Doflein & Reichenow 1929 | *Rimostrombidium brachykinetum* Krainer, 1995  *Rimostrombidium humile* (Penard, 1922)  *Rimostrombidium* |
| Vorticellidae Ehrenberg 1838 | *Vorticella* — minute  *Vorticella* — large  *Vorticella aqua-dulcis*-complex Stokes, 1887  *Vorticella mayeri* Faure-Fremiet, 1920 |
| Zoothamniidae Sommer, 1951 | *Pseudohaplocaulus* sp. |
| Astylozoidae Kahl 1935 | *Astylozoon* sp.  *Hastatella* sp. |
| Trichodinidae Claus 1874 | *Trichodina* cf. *diaptomi* Basson and Van As, 1991 |
| Cinetochilidae Perty 1852 | *Cinetochilum margaritaceum* Perty, 1852 |
| Cyclidiidae Ehrenberg 1838 | *Cyclidium* spp. |
| other minute scuticociliates | |
| Heterotrophic nanoplankton filtering  **HF** | Strobilidiidae Kahl in Doflein & Reichenow 1929 | *Rimostrombidium lacustris* (Foissner, Skogstad & Pratt, 1988) |
| Tintinnidiidae Kofoid & Campbell 1929 | *Tintinnidium* spp.  *Tintinnopsis* spp.  *Codonella cratera* Leidy, 1887 |
| Mixotrophic nanoplankton filtering  **MF** | Pelagostrombidiidae Agatha 2004 | *Pelagostrombidium* spp.  *Limnostrombidium* spp. |
| Strobilidiidae Kahl in Doflein & Reichenow 1929 | *Rimostrombidium velox* (Faurè-Fremiet, 1924) |
| Algae hunters  **AH** | Balanionidae Small & Lynn 1985 | *Balanion planctonicum* (Foissner, Oleksiv & Müller, 1990) |
| Urotrichidae Small & Lynn 1985 | *Urotricha* ~10µm  *Urotricha globosa* Schewiakoff, 1892  *Urotricha furcata* Schewiakoff, 1892  *Urotricha pseudofurcata* Krainer 199*5*  *Urotricha pelagica* Kahl, 1932  *Urotricha castalia*Muñoz, Tellez & Fernandez-Galiano, 1987 |
| Histiobalantiidae de Puytorac & Corliss in Corliss 1979 | *Histiobalantium* spp. |
| Chilodonellidae Deroux 1970 | *Phascolodon vorticella* Stein, 1859  *Trithigmostoma* sp. |
| Raptorial & Flagellate hunters  **RH** | Colepidae Ehrenberg 1838 | *Coleps* spp. |
| Actinobolinidae Kahl 1930 | *Actinobolina* spp. |
| Enchelyidae Ehrenberg 1838 | *Enchelys* spp. |
| Trachelophyllidae Kent 1882 | *Lagynophrya* spp. |
| Didiniidae Poche 1913 | *Monodinium* spp. — minute  *Monodinium* spp. — large |
| *Incertae sedis* CON-threeP | *Askenasia chlorelligera* Krainer & Foissner, 1990  *Askenasia volvox* (Penard 1922)  *Askenasia* spp. — minute  *Askenasia* spp. — large  *Rhabdoaskenasia minima* Krainer & Foissner, 1990 |
| *Incertae sedis* SAL | *Mesodinium* spp.  *Litonotus* spp. — minute |
| Oversized biomass | Epistylididae Kahl 1933 | *Epistylis* spp. — pelagic, colonial |
| Stentoridae Carus 1863 | *Stentor* sp. |
| Prorodontidae Kent 1881 | *Prorodon* spp. — large |
| Cyclotrichiidae Jankowski 1980 | *Cyclotrichium* sp. |
| Lacrymariidae de Fromentel 1876 | *Lacrymaria* spp. |
| Dileptidae Jankowski 1980 | *Pelagodileptus* spp. |