

Supplementary Material

Table S1. BLAST (megablast) results of retrieved phylotypes from the 18S clone libraries obtained with ciliate- and *Heteromita*-specific primers.

| Reference clone sequence | Most similar BLAST result | Accession number | % Similarity | % Query coverage | Notes |
|--------------------------|--------------------------------------|------------------|--------------|------------------|--------------------------------|
| TiePCil_61 | uncultured ciliate | AB725340 | 99 | 100 | cold-adapted ciliate from snow |
| TiePCil_70 | <i>Apocoleps</i> sp. | HM747137 | 89 | 99 | |
| TiePCil_18 | <i>Microdiaphanosoma arcuatum</i> | GU997633 | 96 | 100 | |
| TiePCil_41 | <i>Cyrtolophosis mucicola</i> | EU039899 | 97 | 100 | aquatic moss pillars |
| TiePCil_59 | uncultured alveolate | DQ244029 | 94 | 100 | deep meromictic lake |
| TiePCil_54 | <i>Pseudocyrtolophosis alpestris</i> | EU264564 | 93 | 100 | |
| WilPCil_16 | uncultured ciliate | DQ115936 | 98 | 99 | |
| TiePCil_45 | <i>Platyophrya bromelicola</i> | EU039905 | 98 | 100 | |
| WiePCil_29 | <i>Tetrahymena rostrata</i> | JQ045342 | 98 | 100 | farm snails pathogens |
| TiePCil_24 | Uncultured ciliate | JQ627409 | 99 | 100 | epilithic biofilms |
| WilPCil_3 | <i>Parabistichella variabilis</i> | JN008943 | 98 | 100 | |
| TiePCil_22 | <i>Orthampisiella breviseries</i> | AY498654 | 97 | 100 | water |
| TiePCil_21 | Oxytrichidae | EF024903 | 98 | 100 | |
| WilPCil_18 | <i>Gonostomum namibiensis</i> | AY498655 | 98 | 100 | |
| WilPCil_12 | <i>Oxytricha lanceolata</i> | AM412773 | 98 | 100 | |
| TiePCil_51 | <i>Anteholosticha gracilis</i> | FJ775713 | 93 | 100 | |
| WilPCil_2 | <i>Urostyla grandis</i> | EF535731 | 99 | 100 | |
| WilPCil_6 | Uncultured eukaryote | JX457463 | 97 | 100 | |
| WilPCil_38 | <i>Vorticella astyliformis</i> | GQ872427 | 95 | 100 | |
| WilPCil_14 | <i>Epistylis galea</i> | AF401527 | 98 | 99 | |
| WilPCil_11 | Uncultured ciliate | DQ115944 | 94 | 99 | |
| TiePCil_9 | <i>Enchelyodon</i> sp. | JF263446 | 99 | 96 | |
| TiePCil_16 | <i>Spathidium</i> sp. | Z22931 | 96 | 99 | |
| TiePCil_43 | Uncultured ciliate | AM114813 | 95 | 99 | |
| TiePCil_20 | Uncultured alveolate | FN690013 | 94 | 94 | |
| WilPCil_33 | <i>Loxophyllum rostratum</i> | DQ411864 | 95 | 99 | |
| WilPCil_100 | <i>Enchelyodon</i> sp. | JF263446 | 97 | 100 | |
| WilPCil_27 | Uncultured ciliate | HQ219427 | 97 | 94 | |
| TiePCil_48 | <i>Spathidium</i> sp. | Z22931 | 98 | 99 | |
| TiePCil_17 | Uncultured ciliate | AM114813 | 98 | 99 | |
| WilPCil_36 | Uncultured ciliate | JX268822 | 95 | 100 | |
| WilPCil_24 | <i>Orthoamphisiella</i> sp. | JQ723974 | 96 | 100 | |
| WiePCil_26 | <i>Bryometopus pseudochilodon</i> | EU039887 | 93 | 100 | |
| TiePCil_64 | <i>Orthampisiella breviseries</i> | AY498654 | 97 | 99 | |
| TieP_43 | Cercozoa sp. | EU709212 | 95 | 97 | soil glissomonadida |
| TieP_80 | Cercozoa sp. | EU709189 | 92 | 98 | soil glissomonadida |
| TieP_28 | Unc. Eukaryote clone | KC664246 | 91 | 91 | soil glissomonadida |
| TieP_31 | Unc. Eukaryote clone | JN207853 | 90 | 94 | arctic and antarctic mats |
| TieP_91 | Unc. Cercozoan isolate | EU709214 | 93 | 98 | soil glissomonadida |
| TieP_29 | Unc. Cercozoan isolate | EU709204 | 95 | 99 | soil glissomonadida |
| TieP_25 | Unc. Cercozoan isolate | EU709206 | 95 | 98 | soil glissomonadida |
| TieP_36 | Unc. Cercozoan isolate | EU709201 | 95 | 99 | soil glissomonadida |
| TieP_40 | Unc. banisveld isolate | EU91848 | 94 | 99 | anaerobic aquifer polluted |

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| Reference clone sequence | Most similar BLAST result | Accession number | % Similarity | % Query coverage | Notes |
|--------------------------|---------------------------|------------------|--------------|------------------|------------------------|
| TieP_75 | Unc. Cercozoan isolate | EU709194 | 95 | 90 | not specified |
| TieP_82 | Bodomorpha sp. | HM536171 | 90 | 100 | not specified |
| Tiep_32 | Unc. Eukaryote clone | EU371364 | 96 | 100 | Svalbard |
| WiIP_25 | Unc. Cercozoan isolate | EU709199 | 88 | 91 | soil glissomonadida |
| WiINP_46 | Unc. Cercozoan isolate | EU709207 | 89 | 99 | soil glissomonadida |
| WiINP_33 | Unc. Cercozoan isolate | EU709192 | 93 | 95 | soil glissomonadida |
| WiINP_41 | Unc. Cercozoan isolate | AB695471 | 95 | 100 | antarctic moss pillars |
| WiINP_30 | Unc. Cercozoan isolate | EU709216 | 92 | 100 | soil glissomonadida |
| WiIP_42 | Unc. Eukaryote clone | EU709161 | 96 | 99 | human skin |

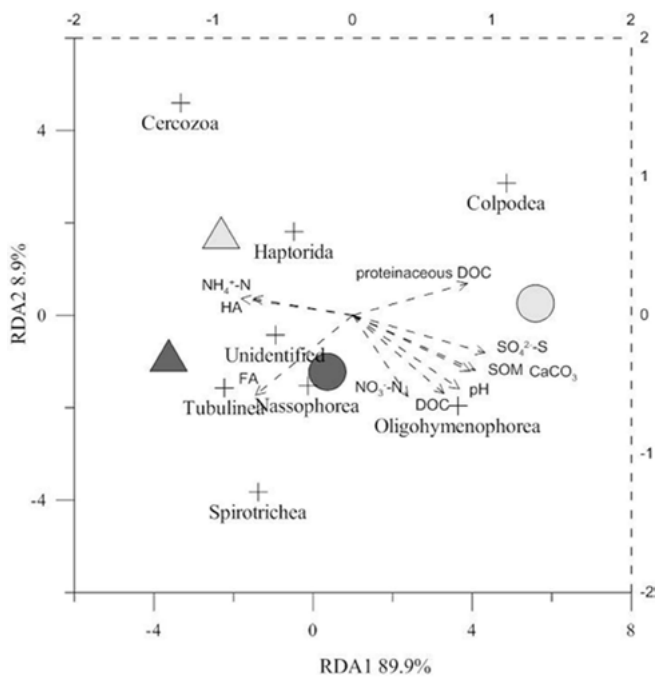


Fig. S1. RDA analysis based on microscopic observation of ciliates and Testate amoeba. Triangles: Tiefen site; Circles: Wildstrubel site; Light gray shading: unvegetated sample; dark gray shading: vegetated sample; crosses: community components. Dotted arrows representing factor scores refer to the dotted axes.