

Fig. S1. Observations of *Zoothamnium paraentzii* in a large colony (A) and after staining with the MFD technique (B).

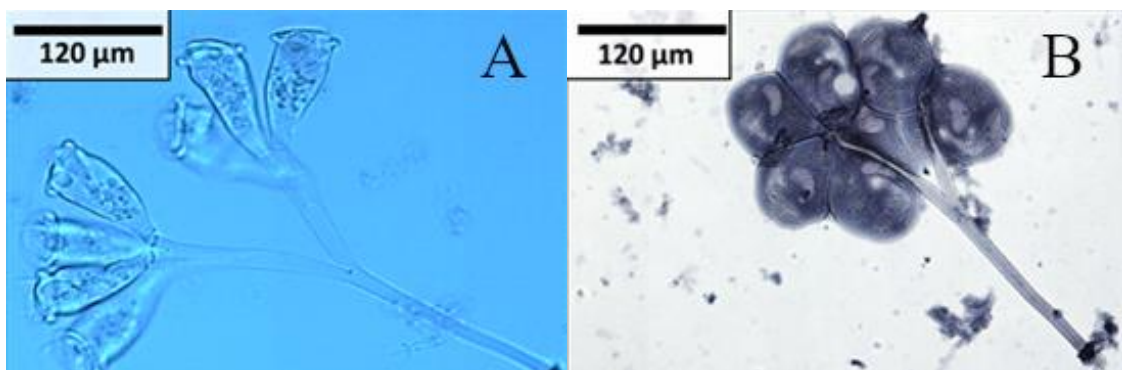


Fig. S2. Micrographs of *Epistylis plicatilis* showing a fresh colony (A) and nuclei stained with the MFD technique at 20× (B).

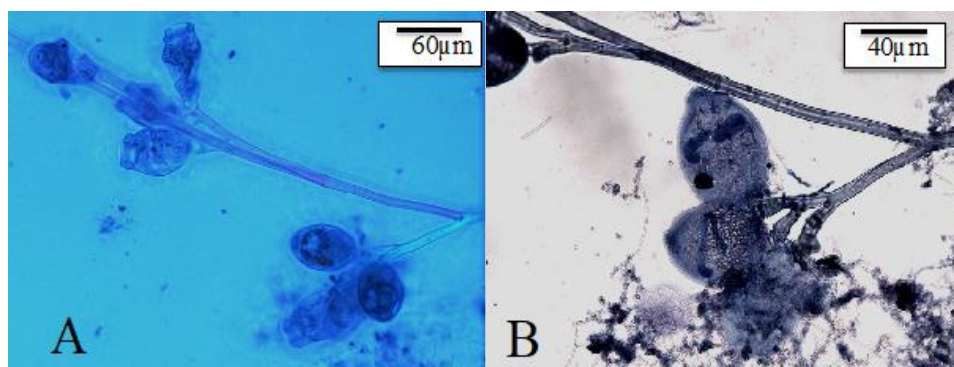


Fig. S3. Micrographs of *Carchesium polypinum* showing a fresh sample (A) and stained with the FD technique (“J” shaped nucleus) (B) at 20×.

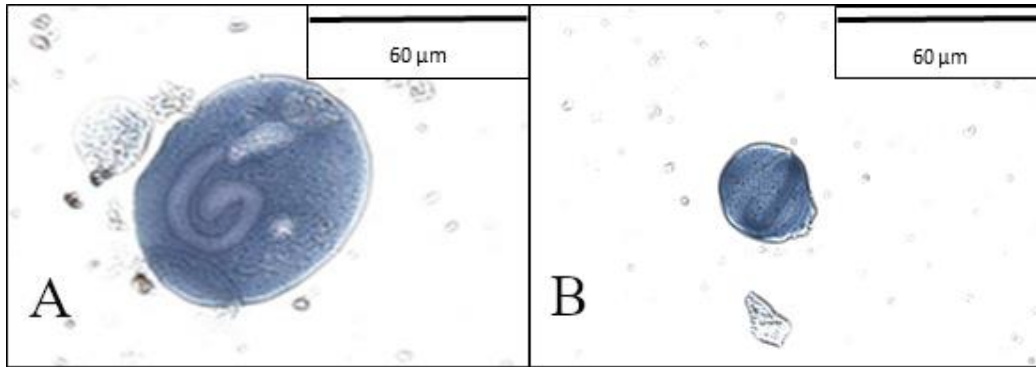


Fig. S4. Micrographs of telotrocha stained with the MFD (“C” shaped nucleus) (A) and FD (“G” shaped nucleus) (B) techniques at 20×.

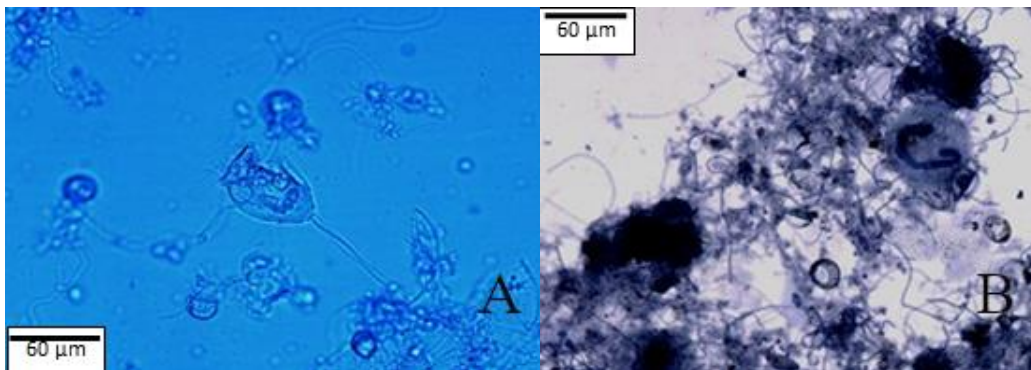


Fig. S5. Micrographs of *Vorticella aquadulcis* showing a fresh sample (A) and stained with the FD technique (“J” shaped nucleus) (B) at 20×.

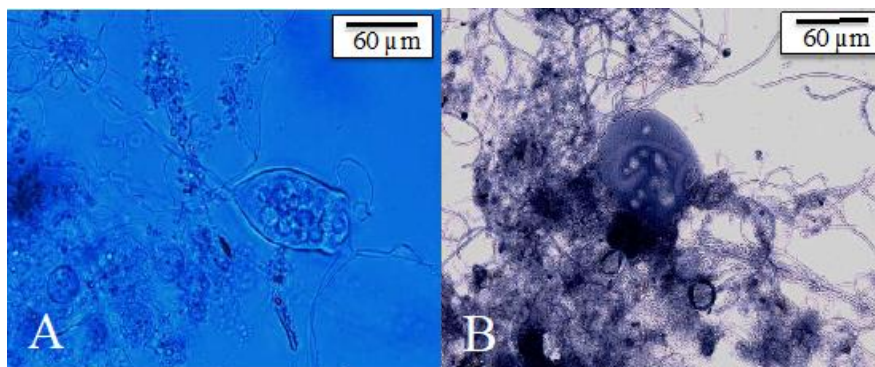


Fig. S6. Micrographs of *Vorticella convallaria* showing a fresh sample (A) and stained with the MFD technique (“J” shaped nucleus) (B) at 20×.

Table SI  
ITS 18S rRNA BLASTn analysis.

Accession number	Description	% identity
<i>Vorticella campanula</i> 105vor	JN120241	98.5
<i>Vorticella campanula</i> 163jp	JN120250	98.5
<i>Vorticella campanula</i> 106vs	JN120242.	98.5
<i>Vorticella campanula</i> 164jp	JN120251	98.5
<i>Vorticella campanula</i> 104012705	JN120240	98.1
<i>Vorticella campanula</i> 77V	JN120222.	97.4
<i>Vorticella gracilis</i> wh3S1S2	JN120234	97.4
<i>Vorticella gracilis</i> 88vorc2f	JN120233	97.4
<i>Vorticella fucsa</i> 93S21wallerseefatvor	JN120228	97.1
<i>Vorticella fucsa</i> 92Vsp10whS1S2	JN120230	97.1
<b><i>Vorticella fucsa</i> 94S8Bog</b>	JN120229	97.1
<i>Vorticella gracilis</i> 86022302	JN120232	97
<i>Vorticella gracilis</i> 86022302	JN120232	97
<i>Vorticella gracilis</i> 85LargeVor	JN120231	97
<i>Vorticella aequilata</i> 67vsp11wh25S1S2	JN120214	96.5
<i>Vorticella convallaria</i> 75PLflat	JN120220	96.5
<i>Vorticella similis</i> 76PLextended	JN120221	96.5
<i>Vorticella citrina</i> 80SmallVor	JN120226	96.5
<i>Vorticella citrina</i> wh6S1S2	JN120225	96.5
<i>Vorticella aequilata</i> 69S2Seeburg	JN120209	96.5
<i>Vorticella</i> sp. 64S8Bogslender	JN120207	96.5
<i>Vorticella aequilata</i> 7208110802vorsp15	JN120215	96.2
<i>Vorticella aequilata</i> 162jpvtofusu	JN120249	96.2
<i>Vorticella aequilata</i> 71Vsp14gzS1S2	JN120218	96.2
<i>Vorticella oceanica</i> FG16-15_19	MH055797	94.7
<i>Vorticella oceanica</i> FG16- 1_2_8_9_10_11	MH055798	94.7
<i>Vorticella oceanica</i> FG17-12	MH055801	94.7
<i>Vorticella</i> sp. ZL-2018c	KY594768	94.7
<i>Vorticella aequilata</i> 67vsp11wh25S1S2	JN120214	96.5
<i>Vorticella fucsa</i> 94S8Bog	JN120229	97.1
<i>Vorticella aequilata</i> 70S1Seeirhestreamvsp	JN120208	96.5
<i>Vorticella aequilata</i> 65S2Seeburg	JN120212	96.5
<i>Vorticella aequilata</i> 152con3S2	JN120244	96.5
<i>Vorticella aequilata</i> 154516	JN120245	96.5

Accession number	Description	% identity
<i>Vorticella</i> sp. ZL-2018d	KY594765	94.2
<i>Vorticella</i> sp. PPS-2011b	JN120253	91.5
<i>Vorticella microstoma</i> 41517	JN120200	91.2
<i>Vorticella</i> sp. ZL-2018a	KY594766	90.9
<i>Vorticella microstoma</i> 44C001	JN120202	90.8
<i>Vorticella microstoma</i> 52609wh	JN120206	90.2