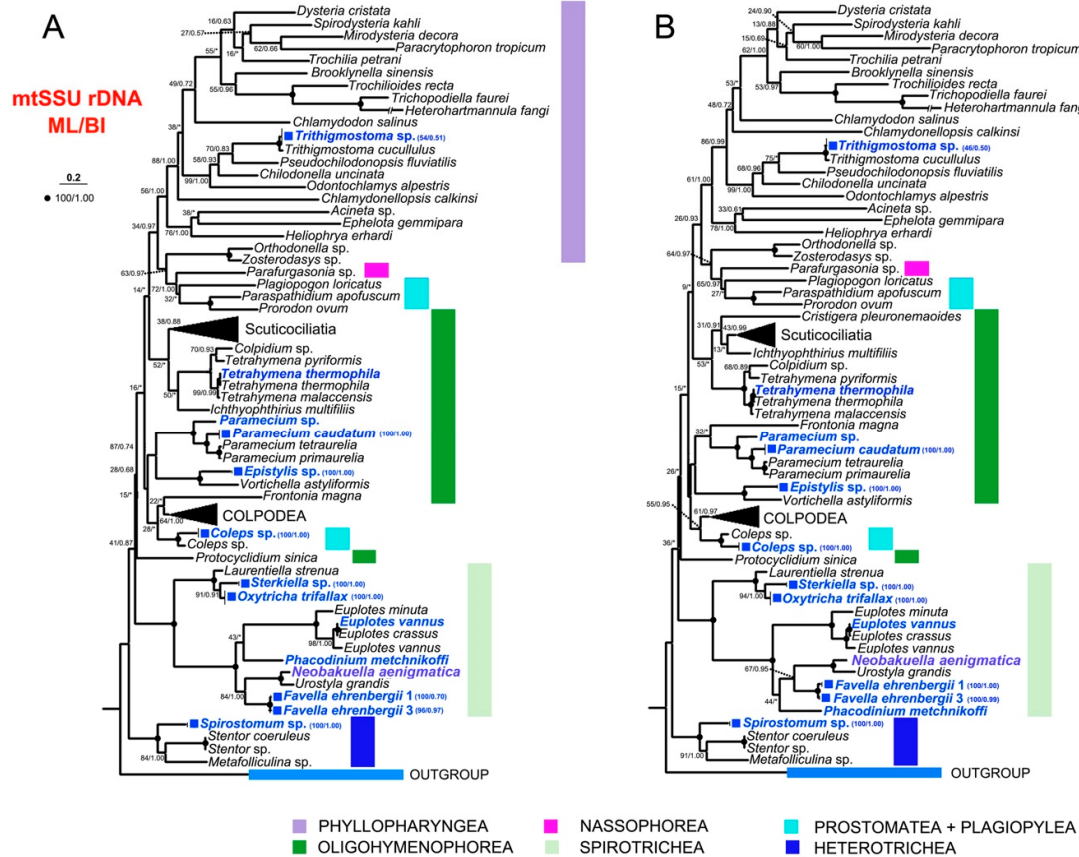




Supplementary Figure 1: The maximum likelihood (ML) tree based on mtSSU rDNA sequence alignment with all haplotypes for the 13 species studied (bold and blue), with masking sites removed(A) and not removed(B). Blue squares represent the monophyletic clades formed by all haplotypes within the same species (support values are behind the species name). Numbers near nodes represent the bootstrap values of ML and the posterior probability values of Bayesian analysis (BI). Dots (.) mean fully supported node (100/1.00) while asterisks (*) indicate the disagreement between ML and BI topologies. The scale bar corresponds to two substitutions per 100 nucleotide positions. All branches are drawn to scale.

Supplementary Table 1: Primers for digital PCR.

Primers	Sequences (5' - 3')	Primers	Sequences (5' - 3')	Species
2_f	ATCAGGATTGGAGACCC	2_r	TTATACAAACTCCCGCC	<i>Oxytricha trifallax</i> ; <i>Sterkiella</i> sp.
7_f	CTTAACAGAATTGGCGGG	7_r	CACGAACTGACGACAGCC	<i>Paramecium caudatum</i> ; <i>Paramecium</i> sp.;
8_f	GTACAGGTAGTGAGAAGG	8_r	TCTTGCGACTATACTCCC	<i>Tetrahymena thermophila</i> ;
13_f	TGAACGGTGGAGCGTGTGG	13_r	TACGAACTGACGACAGCC	<i>Coleps</i> sp.
21_f	TTAACRRAATTGGCGGG	21_r	AACTGACGACAGCCATGC	<i>Favella ehrenbergii</i>
23_f	GATTGGAGACCCTCGTAG	23_r	ATCTAAACTCCCGCCAAT	<i>Epistylis</i> sp.;
26_f	CGGGCAATCTTACCAGTC	26_r	GGTTGCGTTTGTTTGATA	<i>Spirostomum</i> sp.
34_f	TAGGCTATCCATTTGTTAC	34_r	GATTCCGACTTCATACCT	<i>Euplotes vannus</i>
51_f	AGGCTTAGCGGTCTTTGA	51_r	TTGCGTTCGTTGGATGAC	<i>Neobakuella aenigmatica</i>
				<i>Trithigmostoma</i> sp.
				<i>Phacodinium metchnikoffi</i>

Supplementary Table 2: mtSSU rDNA copy numbers for each individual.

Species	Individuals	mtSSU rDNA copy number
<i>Epistylis</i> sp.	1	853,415
	2	758,816
<i>Paramecium caudatum</i>	1	205,252
	2	152,375
	3	85,468
<i>Paramecium</i> sp.	1	147,729
	2	99,544
	3	94,829
<i>Tetrahymena thermophila</i>	1	24,541
	2	7,916
	3	1,867
<i>Favella ehrenbergii</i>	1	123,579
	2	285,131
	3	54,717
<i>Sterkiella</i> sp.	1	106,835
	2	41,768
	3	104,765
<i>Phacodinium metchnikoffi</i>	1	114,011
	2	30,383
	3	67,413
<i>Neobakuella aenigmatica</i>	1	34,224
	2	40,687
	3	65,274
<i>Euplotes vannus</i>	1	36,624
	2	29,808
	3	27,508
<i>Oxytricha trifallax</i>	1	20,212
	2	23,943
	3	41,446
<i>Spirostomum</i> sp.	1	125,626
	2	163,898
	3	122,935
<i>Trithigmostoma</i> sp.	1	96,531
	2	130,548
	3	76,728
<i>Coleps</i> sp.	1	8,919
	2	11,235
	3	10,274