

An 18S rRNA workflow for characterizing protists in sewage, with a focus on zoonotic trichomonads;

Microbial Ecology;

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Online Resource 5 number and identity of Sanger sequences represented by each OTU clustered at 97% V4 region

OTU number	Sequences included		
1	Trichomonas_vaginalis_THAIS192 Trichomonas_vaginalis_SD1 Trichomonas_vaginalis_SA30 Trichomonas_vaginalis_NYCE32 Trichomonas_vaginalis_NYCB20 Trichomonas_vaginalis-like_13240 Trichomonas_vaginalis-like_12857 Trichomonas_vaginalis-like_12847 Trichomonas_vaginalis-like_12839 Trichomonas_vaginalis_G3 Trichomonas_vaginalis_CDC252 Trichomonas_vaginalis_1035 Trichomonas_gallinae_TG Trichomonas_gallinae_AG	Trichomonas_vaginalis_THAIS176 Trichomonas_vaginalis_SA-A71 Trichomonas_vaginalis_PMGH25 Trichomonas_vaginalis_NYCD15 Trichomonas_vaginalis_NYCA04 Trichomonas_vaginalis-like_13211 Trichomonas_vaginalis-like_12855 Trichomonas_vaginalis-like_12842 Trichomonas_vaginalis_GOR23 Trichomonas_vaginalis_CNDC217 Trichomonas_vaginalis_C1:NIH Trichomonas_vaginalis_1031 Trichomonas_gallinae_SL Tetratrichomonas_gallinarum_TP-79	Trichomonas_vaginalis_SD7 Trichomonas_vaginalis_SA-A19 Trichomonas_vaginalis_NYCF20 Trichomonas_vaginalis_NYCC37 Trichomonas_vaginalis-like_13255 Trichomonas_vaginalis-like_13207 Trichomonas_vaginalis-like_12850 Trichomonas_vaginalis-like_12840 Trichomonas_vaginalis_GOR21 Trichomonas_vaginalis_CNDC188 Trichomonas_vaginalis_1080_ Trichomonas_tenax_Hs-4:NIH Trichomonas_gallinae_DP3
2	Rattus_sp. Canis_lupus_familiaris	Homo_sapiens	Equus_caballus
3	Monotrichomonas_carabina_QBSA-1		
4	Pentatrichomonas_hominis_Hs-3:NIH		
5	Tetratrichomonas_gallinarum_Leverett		
6	Saccharomyces_cerevisiae_SK1		
7	Ditrichomonas_honigbergii_DR		
8	Cryptosporidium_parvum_lowa		
9	Blastocystis_hominis_BT1		
10	Monocercomonas_colubrorum_W-578-73		
11	Entamoeba_invadens_IP-1	AF149905_Entamoeba_invadens	
12	Entamoeba_histolytica_HM-1:IMSS		
13	M54878_Giardia_intestinalis_Portland-1		
14	Trichomitus_batrachorum_G43		
15	Toxoplasma_gondii_RH		
16	Gallus_gallus		
17	Tritrichomonas_foetus_KV-1		
18	U37461_Dientamoeba_fragilis_Bi/PA		
19	Dientamoeba_fragilis_Genotype1		

Online Resource 5 taxonomic assignment for the V4 Sanger sequences at 97%

OTU number	Number of sequences assigned	Source of OTU representative sequence	Taxonomy assigned, SILVA 111 db (evalue)	Taxonomy assigned, curated db (evalue)
1	41	<i>Trichomonas vaginalis</i> THAIS192	<i>Trichomonas vaginalis</i> (9E-155)	<i>Trichomonas vaginalis</i> (7E-156)
2	4	<i>Rattus</i> sp.	<i>Homo sapiens</i> (0)	<i>Homo sapiens</i> (0)
3	1	<i>Monotrichomonas carabina</i> QBSA-1	<i>Pseudotrichomonas</i> sp. (1E-95)	<i>Monotrichomonas carabina</i> (5E-157)
4	1	<i>Pentatrichomonas hominis</i> Hs-3:NIH	<i>Pentatrichomonas hominis</i> (1E-153)	<i>Pentatrichomonas hominis</i> (1E-154)
5	1	<i>Tetratrichomonas gallinarum</i> Leverett	<i>Tetratrichomonas gallinarum</i> (3E-142)	<i>Tetratrichomonas gallinarum</i> (3E-143)
6	1	<i>Saccharomyces cerevisiae</i>	<i>Saccharomyces cerevisiae</i> (0)	<i>Saccharomyces cerevisiae</i> (0)
7	1	<i>Ditrichomonas honigbergii</i> DR	<i>Honigbergiellidae</i> sp. (3E-117)	<i>Ditrichomonas honigbergii</i> (1E-145)
8	1	<i>Cryptosporidium parvum</i> Iowa	<i>Cryptosporidium parvum</i> (7E-122)	<i>Cryptosporidium parvum</i> (6E-123)
9	1	<i>Blastocystis hominis</i> BT1	<i>Blastocystis</i> sp. (0)	<i>Blastocystis</i> sp. (0)
10	1	<i>Monocercomonas colubrorum</i> W-578-73	<i>Monocercomonas colubrorum</i> (2E-130)	<i>Monocercomonas colubrorum</i> (2E-131)
11	2	<i>Entamoeba invadens</i> IP-1	No blast hit (None)	<i>Entamoeba invadens</i> (0)
12	1	<i>Entamoeba histolytica</i> HM-1:IMSS	No blast hit (None)	<i>Entamoeba histolytica</i> (0)
13	1	M54878 <i>Giardia intestinalis</i> Portland-1	<i>Giardia intestinalis</i> (2E-50)	<i>Giardia intestinalis</i> (2E-51)
14	1	<i>Trichomitus batrachorum</i> G43	<i>Trichomitus batrachorum</i> (5E-150)	<i>Trichomitus batrachorum</i> (4E-151)
15	1	<i>Toxoplasma gondii</i> RH	<i>Toxoplasma gondii</i> (0)	<i>Toxoplasma gondii</i> (0)
16	1	<i>Gallus gallus</i>	<i>Gallus gallus</i> (0)	<i>Gallus gallus</i> (0)
17	1	<i>Tritrichomonas foetus</i> KV-1	<i>Tritrichomonas suis</i> (1E-150)*	<i>Tritrichomonas suis</i> (1E-151)
18	1	U37461 <i>Dientamoeba fragilis</i> Bi/PA	<i>Dientamoeba fragilis</i> (6E-54)	<i>Dientamoeba fragilis</i> (5E-55)
19	1	<i>Dientamoeba fragilis</i> Genotype1	<i>Dientamoeba fragilis</i> (7E-57)	<i>Dientamoeba fragilis</i> (6E-58)

**Tritrichomonas foetus* and *Tritrichomonas suis* are considered the same species

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1	23	<i>Trichomonas vaginalis</i> THAIS192	<i>Trichomonas vaginalis</i> (9E-155)	<i>Trichomonas vaginalis</i> (7E-156)
2	18	Trichomonas vaginalis-like 13255	<i>Trichomonas gallinae</i> (9E-155)	<i>Trichomonas gallinae</i> (7E-156)
3	4	<i>Rattus sp.</i>	<i>Homo sapiens</i> (0)	<i>Homo sapiens</i> (0)
4	1	<i>Monotrichomonas carabina</i> QBSA-1	<i>Pseudotrichomonas sp.</i> (1E-95)	<i>Monotrichomonas carabina</i> (5E-157)
5	1	<i>Pentatrichomonas hominis</i> Hs-3:NIH	<i>Pentatrichomonas hominis</i> (1E-153)	<i>Pentatrichomonas hominis</i> (1E-154)
6	1	<i>Tetratrichomonas gallinarum</i> Leverett	<i>Tetratrichomonas gallinarum</i> (3E-142)	<i>Tetratrichomonas gallinarum</i> (3E-143)
7	1	<i>Saccharomyces cerevisiae</i>	<i>Saccharomyces cerevisiae</i> (0)	<i>Saccharomyces cerevisiae</i> (0)
8	1	<i>Ditrichomonas honigbergii</i> DR	<i>Honigbergiellidae sp.</i> (3E-117)	<i>Ditrichomonas honigbergii</i> (1E-145)
9	1	<i>Cryptosporidium parvum</i> Iowa	<i>Cryptosporidium parvum</i> (7E-122)	<i>Cryptosporidium parvum</i> (6E-123)
10	1	<i>Blastocystis hominis</i> BT1	<i>Blastocystis sp.</i> (0)	<i>Blastocystis sp.</i> (0)
11	1	<i>Monocercomonas colubrorum</i> W-578-73	<i>Monocercomonas colubrorum</i> (2E-130)	<i>Monocercomonas colubrorum</i> (2E-131)
12	2	<i>Entamoeba invadens</i> IP-1	No blast hit (None)	<i>Entamoeba invadens</i> (0)
13	1	<i>Entamoeba histolytica</i> HM-1:IMSS	No blast hit (None)	<i>Entamoeba histolytica</i> (0)
14	1	M54878 <i>Giardia intestinalis</i> Portland-1	<i>Giardia intestinalis</i> (2E-50)	<i>Giardia intestinalis</i> (2E-51)
15	1	<i>Trichomitus batrachorum</i> G43	<i>Trichomitus batrachorum</i> (5E-150)	<i>Trichomitus batrachorum</i> (4E-151)
16	1	<i>Toxoplasma gondii</i> RH	<i>Toxoplasma gondii</i> (0)	<i>Toxoplasma gondii</i> (0)
17	1	<i>Gallus gallus</i>	<i>Gallus gallus</i> (0)	<i>Gallus gallus</i> (0)
18	1	<i>Tritrichomonas foetus</i> KV-1	<i>Tritrichomonas suis</i> (1E-150)*	<i>Tritrichomonas suis</i> (1E-151)*
19	1	U37461 <i>Dientamoeba fragilis</i> Bi/PA	<i>Dientamoeba fragilis</i> (6E-54)	<i>Dientamoeba fragilis</i> (5E-55)
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**Tritrichomonas foetus* and *Tritrichomonas suis* are considered the same species