

Supplementary Table S2. Maximum ingestion rates under high prey concentration (10^7 cells mL $^{-1}$) and cell volume (μm^3) of protists.

species	Culture condition	group	Cell volume (μm^3)	Ingestion rate (cells of bacteria protist $^{-1}$ h $^{-1}$)	Ref
<i>Cyclidium</i> sp. YH	anaerobic	Ciliate	$7.37 \times 10^{2\text{ a}}$	2.00×10^3	
<i>Trichomitus</i> sp. YH	anaerobic	Flagellate	$2.68 \times 10^{2\text{ b}}$	0.52×10^2	this study
<i>Paracercomonas</i> sp. YH	anaerobic	Flagellate	$0.65 \times 10^{2\text{ b}}$	1.33×10^2	
<i>Metopus es</i>	anaerobic	Ciliate	$2.54 \times 10^{5\text{ a}}$	4.18×10^3	Massana et al., 1994
<i>Plagiophyla nasuta</i>	anaerobic	Ciliate	$1.05 \times 10^{5\text{ a}}$	4.30×10^3	
<i>Suigetsunonas clinomigrationis</i>	anaerobic	Flagellate	$0.27 \times 10^{2\text{ a}}$	1.8	Kondo and Okamura. 2017
<i>Suigetsunonas linomigrationis</i>	aerobic	Flagellate	$0.27 \times 10^{2\text{ a}}$	6.4	
<i>Ochromonas</i> sp.	aerobic	Flagellate	$2.99 \times 10^{2\text{ b}}$	0.78×10^2	Pfandl et al., 2004
<i>Spumella</i> sp.	aerobic	Flagellate	$0.65 \times 10^{2\text{ b}}$	0.29×10^2	
<i>Bodo designis</i>	aerobic	Flagellate	$1.17 \times 10^{2\text{ a}}$	9.1	
<i>Jakoba libera</i>	aerobic	Flagellate	$0.65 \times 10^{2\text{ b}}$	0.30×10^2	Artolozaga et al., 2002
<i>Rhynchomonas nasuta</i>	aerobic	Flagellate	$0.33 \times 10^{2\text{ b}}$	0.10×10^2	
<i>Euplates vannus</i>	aerobic	Ciliate	$1.70 \times 10^{5\text{ a}}$	1.20×10^4	
<i>Euplates plicatum</i>	aerobic	Ciliate	$2.73 \times 10^{4\text{ a}}$	1.94×10^4	Tuorto and Taghon, 2014
<i>Uronema marinum</i>	aerobic	Ciliate	$1.36 \times 10^{3\text{ a}}$	3.46×10^3	
<i>Tetrahymena</i> sp.	aerobic	Ciliate	$7.96 \times 10^{3\text{ a}}$	4.58×10^3	Eisenmann et al., 1998
<i>Halteria</i> sp.	aerobic	Ciliate	1.95×10^3	3.22×10^3	Simek et al., 2000
<i>Euplates mutabilis</i>	aerobic	Ciliate	$1.88 \times 10^{5\text{ a}}$	1.60×10^4	Zubkov and Sleigh, 1996
<i>Stylochondria</i> sp.	aerobic	Ciliate	$1.35 \times 10^{5\text{ a}}$	1.21×10^3	
<i>Colpoda</i> sp.	aerobic	Ciliate	$2.85 \times 10^{3\text{ a}}$	9.30×10^2	Hadas et al., 1998

a, estimated as ellipsoid body from length and width of each cell; b, estimated as sphere body from diameter of each cell.

References:

- Massana R, Stumm, CK, Pedrós-Alió C. (1994). Effects of temperature, sulfide, and food abundance on growth and feeding of anaerobic ciliates. *Appl Environ Microbiol* **60**: 1317-1324.
- Kondo R, Okamura T. (2017). Growth and grazing kinetics of the facultative anaerobic nanoflagellate, *Suigetsunomas clinomigrationis*. *Microbes Environ* **32**: 80-83
- Pfandl K, Posch T, Boenigk J. (2004). Unexpected effects of prey dimensions and morphologies on the size selective feeding by two bacterivorous flagellates (*Ochromonas* sp. and *Spumella* sp.). *J Eukaryot Microbiol* **51**: 626-633.
- Artolozaga I, Valcárcel M, Ayo B, Latatu A, Iribarri J. (2002). Grazing rates of bacterivorous protists inhabiting diverse marine planktonic microenvironments. *Limnol Oceanogr* **47**: 142-150.
- Tuorto SJ, Taghon GL. (2014). Rates of benthic bacterivory of marine ciliates as a function of prey concentration. *J Exp Mar Biol Ecol* **460**: 129-134.
- Eisenmann H, Harms H, Meckenstock R, Meyer EI, Zehnder AJ. (1998). Grazing of a *Tetrahymena* sp. on adhered bacteria in percolated columns monitored by in situ hybridization with fluorescent oligonucleotide probes. *Appl Environ Microbiol* **64**: 1264-1269.
- Simek K, Jürgens K, Nedoma J, Comerma M, Armengol J. (2000). Ecological role and bacterial grazing of *Halteria* spp.: small freshwater oligotrichs as dominant pelagic ciliate bacterivores. *Aquat Microb Ecol* **22**: 43-56.
- Zubkov MV, Sleigh MA. (1996). Bacterivory by the ciliate *Euplotes* in different states of hunger. *FEMS Microbiol Ecol* **20**: 137-147.
- Hadas O, Malinsky-Rushansky N, Pinkas R, Cappenberg TE. (1998). Grazing on autotrophic and heterotrophic picoplankton by ciliates isolated from Lake Kinneret, Israel. *J Plankton Res* **20**: 1435-1448.

