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Appendix 1

Table A1. Phytoplankton and zooplankton groups of species and measured variables used in the meta-analysis in the food chain.

Article	Phytoplankton (Measure – source)	Zooplankton (Measure – source)
Acuna et al. 2008	Chl-a ($\mu\text{g l}^{-1}$; Fig. 3)	<i>Brachionus calyciflorus</i> , total cladocerans (Individuals l^{-1} ; Fig. 4), <i>Polyartha</i> sp., <i>Keratella</i> sp. (Individuals l^{-1} ; Fig. 5)
Beresford and Jones 2010	Chl-a in $\mu\text{g l}^{-1}$; Fig. 1	no. of individuals l^{-1} ; Fig. 1
Drenner et al. 1990	no. 10^3 ml^{-1} ; Fig. 2	no. of individuals l^{-1} ; Fig. 1
Faafeng et al. 1990	Chl-a in $\mu\text{g l}^{-1}$; Fig. 1	zooplankton biomass in $\mu\text{g C l}^{-1}$; Fig. 2
Fernandez-Alaez et al. 2004	phytoplankton biovolume in $\text{mm}^3 \text{ l}^{-1}$; Fig. 2 (1998)	zooplankton biomass in mg l^{-1} ; Fig. 2 (1998)
Hietala et al. 2004	Chl-a in $\mu\text{g l}^{-1}$; Fig. 1 (1998 and 1999)	rotifers + euplanktonic cladocerans + raptorial feeders biomass in $\mu\text{g dry mass l}^{-1}$; Fig. 2
Hansson et al. 2004	phytoplankton biovolume in $\text{mm}^3 \text{ l}^{-1}$; Fig. 2	zooplankton biomass in $\mu\text{g l}^{-1}$; Fig. 2
Lacroix and Lescher-Moutoué	no. of individuals ml^{-1} ; unpubl. data	no. of individuals l^{-1} ; unpubl. data

(unpubl. data)		
Lynch and Shapiro 1981	biovolume: $10^5 \mu\text{m}^3 \text{ml}^{-1}$ (mean of LN and mean of HN for low and high levels of nutrient respectively); Table 7	no. of individuals 10^3ind. m^{-2} ; Fig. 6
Markosová and Jezek 1993	biovolume: $\text{mm}^3 \text{l}^{-1}$; Fig. 5	
McQueen et al. 1992	Chl-a in $\mu\text{g l}^{-1}$; Fig. 1	biomass: $\mu\text{g l}^{-1}$ wet weight; Fig. 3
Mette et al. 2011	Chl-a in $\mu\text{g l}^{-1}$; Fig. 1	zooplankton biomass in $\mu\text{g l}^{-1}$; Fig. 2
Proulx et al. 1996 Deep and shallow	biomass: $\mu\text{g m}^{-3}$; Fig. 2	biomass: $\mu\text{g l}^{-1}$; Table 2
Qin and Culver 1995	biovolume: $\text{mm}^3 \text{l}^{-1}$; Fig. 1	biomass: mg l^{-1} ; Fig. 1
Riemann 1985	Chl-a in $\mu\text{g l}^{-1}$; Fig. 1	biomass: $\mu\text{gC l}^{-1}$; Fig. 1
Romo et al. 2004	Chl-a in mg l^{-1} in (Van de Bund et al. 2004), Fig. 1	cladoceran + planktonic rotifera + nauplii + cyclopoida biomass in $\mu\text{g l}^{-1}$; Fig. 5 and 6
Stephen et al. 2004	Chl-a in mg l^{-1} in (Van de Bund et al. 2004), Fig. 1	raw data
Van de Bund et al.	total phytoplankton biomass: $106 \mu\text{m}^3 \text{ml}^{-1} \text{day}^{-1}$; Fig. 3a	total zooplankton biomass: $\mu\text{g dry biomass l}^{-1}$; Fig. 4a and raw

2004		data
Vanni 1987a 1980–1981	biovolume: $10^3 \mu\text{m}^3 \text{ml}^{-1}$; Fig. 2 and 3	biomass: mg m^{-2} ; Table 2

Table A2. Phytoplankton and zooplankton species or groups of species and measured variables used in the meta-analysis for the food web.

Article	Highly edible phytoplankton (Measure – source)	Poorly edible phytoplankton (Measure – source)
Dickman et al. 2008	cryptomonads, diatoms, green algae, small flagellates and other phytoplankton groups (%; Fig. 3)	cyanobacteria (% ; Fig. 3)
Drenner et al. 1990	green unicells, cryptomonads, diatoms (no. 10^3 ml^{-1} ; Fig. 2)	blue-green unicells, blue-green colonies and green colonies (no. 10^3 ml^{-1} ; Fig. 2)
Fernandez-Alaez et al. 2004 1998 and 1999	Chrysophyceae, Chlorophyceae, Euglenophycota, Bacillariophyceae, Cryptophyceae (%; Fig. 1 and 5)	cyanobacteria, Dinophyceae (%; Fig. 1 and 5)
Hietala et al. 2004	chlorophytes, cryptophytes, diatoms and other algae in contribution (%) to total biomass in (Van de Bund et al. 2004), Fig. 3 and 4	cyanobacteria in contribution (%) to total biomass in (Van de Bund et al. 2004), Fig. 3 and 4
Hansson et al. 2004	biovolume of GALD<50 μm in $\text{mm}^3 \text{ l}^{-1}$; Fig. 4	biovolume of GALD>50 μm in $\text{mm}^3 \text{ l}^{-1}$; Fig. 4
Lacroix and Lescher-Moutoué	<i>Chroomonas</i> sp., <i>Coelastrum astroideum</i> , <i>C. microporum</i> , <i>Colacium</i> sp., <i>Cryptomonas</i> sp., <i>Cyclotella ocellata</i> , <i>Monora-</i>	<i>Ceratium hirundinella</i> , <i>Cosmarium meneghini</i> , <i>Cosmarium</i> sp., <i>Crucigenia crucifera</i> , <i>C. quadrata</i> , <i>C. tetrapedia</i> ,

(unpubl. data)	<i>Phidium contortum</i> , <i>Quadricoccus ellipticus</i> , <i>Scenedesmus acuminatus</i> , <i>Tetraedron minimum</i> , <i>Trachelomonas</i> sp. and small undetermined unicells (no. of individuals ml ⁻¹)	<i>Dictyosphaerium</i> sp., <i>Oocystis lacustris</i> , <i>Pediastrum boryanum</i> , <i>P. duplex</i> , <i>Scenedesmus quadricauda</i> , <i>Schroederia indica</i> , <i>Staurastrum</i> sp. and <i>Synedra ulna</i> (no. of individuals ml ⁻¹)
Lynch and Shapiro 1981	<i>Chlamydomonas</i> sp.1, <i>Cyclotella</i> sp, <i>Heterochromonas globosa</i> , <i>Oscillatoria tenuis</i> , <i>Rhodomonas minuta</i> , <i>Scenedesmus denticulatus</i> (Biomass [10 ⁵ μm ³ ml ⁻¹]: Mean of LN for low level of nutrient and mean of HN for high level of nutrient; Table 7)	<i>Aphanizomenon flos-aquae</i> , <i>Ceratium hirundinella</i> , <i>Chroococcus dispersus</i> , <i>Closterium moniliferum</i> , <i>Cosmarinium andulosum</i> , <i>C. nitidulum</i> , <i>C. sexnotatum</i> , <i>Gloeocystis vesiculosa</i> , <i>Pediastrum boryanum</i> , <i>Sphaerocystis schroeteri</i> , <i>Staurastrum paradoxum</i> , <i>Ulothrix oscillarina</i> (biomass [10 ⁵ μm ³ ml ⁻¹]: mean of LN for low level of nutrient and mean of HN for high level of nutrient; Table 7)
McQueen et al. 1992	Chl a 1–5 μm and Chl a 5–20 μm (%; Fig. 10)	Chl a 20–200 μm (%; Fig. 10)
Proulx et al. 1996 Deep and shallow	Phytoplankton 2–10μm and >10–20μm (% of biomass; Fig. 3 and 5)	Phytopl. >20 μm (% of biomass; Fig. 3 and 5)
Qin and Culver 1995	diatoms, green algae (mm ³ l ⁻¹ ; Fig. 1)	blue green algae (mm ³ l ⁻¹ ; Fig. 1)
Stephen et al. 2004	chlorophytes, cryptophytes, diatoms and other algae in	cyanobacteria in contribution (%) to total biomass in (Van de

	contribution (%) to total biomass in (Van de Bund et al. 2004), Fig. 3 and 4 – see Fig. 1 and 3	Bund et al. 2004), Fig. 3 and 4 - see Fig. 1 and 3
Romo et al. 2004	chlorophytes, cryptophytes, diatoms and other algae in contribution (%) to total biomass in (Van de Bund et al. 2004), Fig. 3 and 4	cyanobacteria in contribution (%) to total biomass in (Van de Bund et al. 2004), Fig. 3 and 4
Van de Bund et al. 2004	chlorophyte and cryptophyte biomass: $10^6 \mu\text{m}^3 \text{ml}^{-1} \text{day}^{-1}$; Fig. 3	cyanobacterial biomass: $10^6 \mu\text{m}^3 \text{ml}^{-1} \text{day}^{-1}$; Fig. 3
Vanni 1987a 1980	<i>Ankistrodesmus convolutus</i> , <i>Chlorella vulgaris</i> , <i>Chlorococcum</i> sp., <i>Chrysochromulina parva</i> , <i>Cryptomonas</i> sp., <i>Cyclotella stelligera</i> (biovolume density [$10^3 \mu\text{m}^3 \text{ml}^{-1}$]; Fig. 2)	<i>Aphanothece clathrata</i> , <i>Coenococcus</i> sp., <i>Cosmarium</i> sp., <i>Mallomonas caudata</i> , <i>Oocystis lacustris</i> , <i>O. marssonii</i> , <i>Scenedesmus incrassus</i> , <i>Selenastrum bibrianum</i> (biovolume density [$10^3 \mu\text{m}^3 \text{ml}^{-1}$]; Fig. 2)
Vanni 1987a 1981	<i>Chrysochromulina parva</i> , <i>Coelastrum microporum</i> , <i>Cyclotella stelligera</i> (biovolume density [$10^3 \mu\text{m}^3 \text{ml}^{-1}$]; Fig. 3)	<i>Achnantes</i> sp., <i>Chlorococcum</i> sp., <i>Coenococcus</i> sp., <i>Cosmarium</i> sp., <i>Mallomonas caudata</i> , <i>Oocystis marssonii</i> , <i>Scenedesmus incrassus</i> , <i>Synedra ulna</i> (biovolume density [$10^3 \mu\text{m}^3 \text{ml}^{-1}$]; Fig. 3)

Table A3. Zooplankton species or groups of species and measured variables used in the meta-analysis for the food web.

Article	Small herbivorous zooplankton (Measure – source)	Large herbivorous zooplankton (Measure – source)	Invertebrate carnivores (Measure – source)
Acuna et al. 2008	no. of individuals L^{-1} - <i>Brachionus calyciflorus</i> , <i>Polyartha</i> sp., <i>Keratella</i> sp. (Fig. 5)	no. of individuals l^{-1} - total cladocerans (Fig. 4)	no invertebrate carnivores
Dickman et al. 2008	nauplii, rotifers (% ; Fig. 3)	cladocerans (%; Fig. 3)	adult copepods (%; Fig. 3)
Drenner et al. 1989 OU and TCU	rotifers (no. L^{-1} ; Fig. 1)	cladocerans (no. l^{-1} ; Fig. 1)	copepods (no. l^{-1} ; Fig. 1)
Drenner et al. 1990	copepods nauplii, non-predatory rotifers (no. l^{-1} ; Fig. 2)	cladocerans (no. l^{-1} ; Fig. 2)	copepodids (no. l^{-1} ; Fig. 2)
Fernandez-Alaez et al. 2004 1998 and 1999	nauplii, rotifers, cladocerans <500 μm (% – Fig. 4 and 6 – raw data)	cladocerans >500 μm (%; Fig. 4 and 6 – raw data)	cyclopoid and calanoid copepods (%; Fig. 4 and 6 – raw data)
Hietala et al. 2004	nauplii, rotifers and small grazers biomass	large grazers biomass in μg dry mass l^{-1} ;	raptorial feeders biomass in μg dry mass l^{-1}

	in $\mu\text{g dry mass l}^{-1}$; Fig. 2 and raw data	Fig. 2 and raw data	$^{-1}$; Fig. 2 and raw data
Hansson et al. 2004	nauplii, rotifers, cladocerans < 500 μm ($\mu\text{g l}^{-1}$; Fig. 5)	cladocerans > 500 μm ($\mu\text{g l}^{-1}$; Fig. 5)	cyclopoid and calanoid copepods ($\mu\text{g l}^{-1}$; Fig. 5)
Lacroix and Lescher-Moutoué (unpubl. data)	<i>Brachionus angularis</i> , <i>B. calyciflorus</i> , <i>B. quadridentatus</i> , <i>Filinia longiseta</i> , <i>Hexarthra mira</i> , <i>Keratella cochlearis</i> , <i>K. quadrata</i> , <i>Lecane</i> spp., <i>Polyarthra dolichoptera-vulgaris</i> and <i>P. major</i> (no. of individuals L^{-1})	<i>Bosmina</i> , <i>Daphnia</i> , <i>Ceriodaphnia</i> , <i>Diaphanosoma</i> , (no. of individuals l^{-1})	<i>Asplanchna girodi</i> , <i>A. priodonta</i> and copepodites, copepodites and adults of <i>Eudiaptomus gracilis</i> , and adults of <i>Acanthocyclops robustus</i> and <i>Thermocyclops crassus</i> (no. of individuals l^{-1})
Lynch and Shapiro 1981	nauplii, rotifers (10^3 ind m^{-2} ; Fig. 6)	<i>Ceriodaphnia reticulata</i> , <i>Daphnia pulex</i> (10^3 ind. m^{-2} ; Fig. 6)	<i>Asplanchna priodonta</i> , <i>Diaptomus clavipes</i> , <i>Chaoborus americanus</i> , <i>Cyclops vernalis</i> (10^3 ind. m^{-2} ; Fig. 6)
Mazumder et al. 1990	<i>Keratella</i> , Nauplii, <i>Polyarthra</i> , <i>Conochilus</i> , <i>Trichocera</i> (no. of individuals l^{-1} ; Table 2)	<i>Bosmina</i> , <i>Ceriodaphnia</i> , <i>Daphnia</i> , (no. of individuals l^{-1} ; Table 2)	Other rotifers, Calanoids, Cyclopoids, <i>Diaphanosoma</i> (no. of individuals l^{-1} ; Table 2)
McQueen et al. 1992	rotifer biomass (biomass [$\mu\text{g l}^{-1}$]; Fig. 7)	bosminid, and daphnid biomass (biomass [$\mu\text{g l}^{-1}$]; Fig. 5, 6 and 8)	calanoid and cyclopoid biomass (biomass [$\mu\text{g l}^{-1}$]; Fig. 4)

Qin and Culver 1995	rotifers (biomass [mg l^{-1}]; Fig. 1)	<i>Bosmina</i> , <i>Daphnia</i> , (biomass [mg l^{-1}]; Fig. 1)	<i>Diaptomus</i> , <i>Cyclops</i> (biomass [mg l^{-1}]; Fig. 1)
Romo et al. 2004	nauplii, planktonic rotifers and small cladocera biomass in $\mu\text{g l}^{-1}$; Fig. 5 and raw data	<i>Simocephalus</i> in $\mu\text{g l}^{-1}$; Fig. 5 and raw data	Cyclopoida in $\mu\text{g l}^{-1}$; Fig. 5 and raw data
Stephen et al. 2004	raw data – see Fig. 2 and 4	raw data – see Fig. 2 and 4	raw data – see Fig. 2 and 4
Van de Bund et al. 2004	raw data – see Fig. 4	raw data – see Fig. 4	raw data – see Fig. 4
Vanni 1987b 1980 and 1981	<i>Keratella cochlearis</i> , bauplii and copepodits, <i>Lecane luna</i> , <i>Monostyla bulla</i> , <i>Polyarthra vulgaris</i> , <i>Trichocerca multicroinis</i> (density [10^3 ind. m^{-2}]; Fig. 5 and 6)	<i>Bosmina longirostris</i> , <i>Ceriodaphnia lacustris</i> , (density [10^3 ind. m^{-2}]; Fig. 4 and 5)	<i>Diaphanosoma birgei</i> , <i>Diaptomus pallidus</i> , <i>Mesocyclops edax</i> , <i>Tropocyclops prasinus</i> (density [10^3 ind. m^{-2}]; Fig. 5)

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