Oikos

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Weis, J. J. and Post, D. M. 2013. Intraspecific variation in a predator drives cascading variation in primary producer community composition. – Oikos 000: 000–000.

Appendix 1

Additional phytoplankton information.

Table A1. Phytoplankton genera identified in the mesocosm experiment. We categorized phytoplankton genera as edible or inedible to crustacean zooplankton based on size and growth form (see methods). Cell length of each genus is the average value of the longest linear dimension measured to estimate cell biovolume.

Genus	Phylum	Edibility	Length (μm)
Achnanthes	Bacillariophyta	Edible	14.44
Ankistrodesmus	Chlorophyta	Edible	23.12
Chlamydomonas	Chlorophyta	Edible	3.69
Chlorella	Chlorophyta	Edible	3.53
Chroococcus	Chroococcales	Edible	4.82
Cosmarium	Chlorophyta	Edible	12.28
Crucigenia	Chlorophyta	Edible	6.25
Cryptomonas	Cryptophyta	Edible	12.91
Cyclotella	Bacillariophyta	Edible	8.64
Dictyosphaerium	Chlorophyta	Edible	3.51
Eudorina	Chlorophyta	Edible	3.68
Euglena	Euglenophyta	Edible	33.77
Gomphonema	Bacillariophyta	Edible	27.89
Gymnodinium	Dinophyta	Edible	9.62
Melosira	Bacillariophyta	Edible	5.35
Navicula	Bacillariophyta	Edible	30.59
Oocystis	Chlorophyta	Edible	4.71
Pediastrum	Chlorophyta	Edible	2.73
Peridinium	Dinophyta	Edible	24.05
Scenedesmus	Chlorophyta	Edible	7.60
Selenastrum	Chlorophyta	Edible	2.92
Staurodesmus	Chlorophyta	Edible	27.01
Tetraedron	Chlorophyta	Edible	9.66
Trachelomonas	Euglenophyta	Edible	13.88
Unk.Small.Green	Chlorophyta	Edible	1.32
Anabaena	Nostocales	Inedible	4.76
Aphanocapsa	Chroococcales	Inedible	0.79
Asterionella	Bacillariophyta	Inedible	34.80
Botryococcus	Chlorophyta	Inedible	3.37
Bulbochaete	Chlorophyta	Inedible	21.40
Ceratium	Dinophyta	Inedible	181.55
Dinobryon	Chrysophyta	Inedible	10.42
Fragilaria	Bacillariophyta	Inedible	72.15
Limnothrix	Oscillatoriales	Inedible	4.01
Merismopedia	Chroococcales	Inedible	0.55
Microcystis	Chroococcales	Inedible	2.75
Mougeotia	Chlorophyta	Inedible	23.31
Staurastrum	Chlorophyta	Inedible	55.88
Synedra	Bacillariophyta	Inedible	146.40
Tabellaria	Bacillariophyta	Inedible	35.35
Woronichinia	Chroococcales	Inedible	1.18

Table A2. Nine most abundant phytoplankton genera observed in this mesocosm experiment ranked by overall percent biovolume. Edibility by crustacean herbivores was determined by average cell length and growth form (details in the methods section). Percent biovolume (% Biovol.) is calculated across all sampling dates and mesocosms.

Genus	Phylum	Growth Form	Edibility	% Biovol.
Tabellaria	Bacillariophyta	Colonial	Inedible	46.1
Cyclotella	Bacillariophyta	Solitary	Edible	14.0
Synedra	Bacillariophyta	Solitary	Inedible	10.1
Chlamydomonas	Chlorophyta	Solitary	Edible	6.2
Cryptomonas	Cryptophyta	Solitary	Edible	3.6
Peridinium	Dinophyta	Solitary	Edible	3.5
Chlorella	Chlorophyta	Aggregate	Edible	2.7
Gymnodinium	Dinophyta	Solitary	Edible	2.2
Mougeotia	Chlorophyta	Filamentous	Inedible	2.2