

Effects of short-term flooding on aquatic and terrestrial microeukaryotic communities: a mesocosm approach

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Table S1. OTUs invaded by flood with taxonomic assignment, identity (%) of assignment, direction of exchange and the duration of immigration

OTU	Taxonomy	Identity (%)	Direction of exchange	Duration of immigration
N980_3291	Eukaryota; Alveolata; Apicomplexa; Conoidasida; Gregarinina; environmental samples; uncultured gregarine	96.599	into water	only while flooding
N8616_30	Eukaryota; Alveolata; Ciliophora; Intramacronucleata; Colpodea; Colpodida; Colpodidae; Exocolpoda; <i>Exocolpoda augustini</i>	98.611	into water	only while flooding
N869_3477	Eukaryota; Alveolata; Ciliophora; Intramacronucleata; Litostomatea; Haptoria; Haptorida; Spathidiidae; Epispardidium; <i>Epispardidium amphoriforme</i>	89.855	into water	only while flooding
N1012_3463	Eukaryota; Alveolata; Ciliophora; Intramacronucleata; Spirotrichea; Stichotrichia; Stichotrichida; Amphisiellidae; Paraurostylo; <i>Paraurostylo weissei</i>	94.888	into water	only while flooding
N4186_556	Eukaryota; Amoebozoa; Darbyshirella; <i>Darbyshirella sp.</i>	100	into water	only while flooding
N335_24773	Eukaryota; Opistokonta; Fungi; Dikarya; Ascomycota; environmental samples; uncultured Ascomycota	85.66	into water	only while flooding
N308_12983	Eukaryota; Opistokonta; Fungi; Dikarya; Ascomycota; saccharomyceta; Pezizomycotina; leotiomyceta; Eurotiomycetes; Eurotiomycetidae; Eurotiales; Aspergillaceae; Penicillium; <i>Penicillium oxalicum</i>	96.978	into water	only while flooding
N1113_2592	Eukaryota; Opistokonta; Fungi; Dikarya; Ascomycota; saccharomyceta; Saccharomycotina; Saccharomycetes; environmental samples; uncultured Saccharomycetes	95.833	into water	only while flooding
N241_22503	Eukaryota; Opistokonta; Fungi; Dikarya; Basidiomycota; Pucciniomycotina; Microbotryomycetes; Microbotryomycetes incertae sedis; Chrysosyzmaceae; Sampaiozyma; <i>Sampaiozyma sp. BF98</i>	85.591	into water	only while flooding
N1494_1698	Eukaryota; Rhizaria; Cercozoa; Cercomonadida; Cercomonadidae; Paracercomonas; <i>Paracercomonas sp. DB-0802-29</i>	95.337	into water	only while flooding
N327_14927	Eukaryota; Rhizaria; Cercozoa; Plasmodiophorida; Plasmodiophoridae; Spongospora; <i>Spongospora sp. HH-2014</i>	88.304	into water	only while flooding
N5902_145	Eukaryota; Alveolata; Ciliophora; Intramacronucleata; Colpodea; Colpodida; Colpodidae; Colpoda; Colpoda cucullus	95.299	into water	until day 2
N1811_1061	Eukaryota; Opistokonta; Fungi; Blastocladiomycota; Blastocladiomycetes; Blastocladiales; Catenariaceae; Catenophlyctis; <i>Catenophlyctis variabilis</i>	90.909	into water	until day 2
N1212_2370	Eukaryota; Opistokonta; Fungi; Dikarya; Ascomycota; saccharomyceta; Pezizomycotina; leotiomyceta; sordariomyceta; Leotiomycetes; Helotiales; Helotiales incertae sedis; Leptodontidium; <i>Leptodontidium sp. aurim 655</i>	100	into water	until day 2
N929_5990	Eukaryota; Opistokonta; Fungi; environmental samples; uncultured fungus	97.603	into water	until day 2
N2404_563	Eukaryota; Opistokonta; Fungi; environmental samples; uncultured soil fungus	97.333	into water	until day 2
N2580_489	Eukaryota; Opistokonta; Fungi; Glomeromycota; Glomeromycetes; Diversisporales; Diversisporaceae; Corymbiglomus; <i>Corymbiglomus tortuosum</i>	91.613	into water	until day 2
N1191_4031	Eukaryota; Opistokonta; Fungi; Glomeromycota; Glomeromycetes; Glomerales; Glomeraceae; environmental samples; uncultured Glomerales	100	into water	until day 2
N843_3747	Eukaryota; Rhizaria; Cercozoa; Cercomonadida; Cercomonadidae; Paracercomonas; <i>Paracercomonas sp. DB-0802-29</i>	96.296	into water	until day 2
N2310_615	Eukaryota; Stramenopiles; Oomycetes; Pythiales; Pythiaceae; Pythium; <i>Pythium rostratiformans</i>	99.387	into water	until day 2
N1318_1763	Eukaryota; Alveolata; Apicomplexa; Conoidasida; Coccidia; Eucoccidiorida; Eimeriorina; Eimeriidae; environmental samples; uncultured Eimeriidae	93.525	into water	until day 3
N405_11331	Eukaryota; Alveolata; Ciliophora; Intramacronucleata; Spirotrichea; Stichotrichia; Sporadotrichida; Oxytrichidae; environmental samples; uncultured Oxytrichidae	93.375	into water	until day 3

N596_6015	Eukaryota; Alveolata; Ciliophora; Intramacronucleata; Spirotrichea; Stichotrichia; Sporadotrichida; Oxytrichidae; environmental samples; uncultured Oxytrichidae	92.994	into water	until day 3
N665_5257	Eukaryota; Alveolata; Ciliophora; Intramacronucleata; Spirotrichea; Stichotrichia; Stichotrichida; environmental samples; uncultured stichotrichid	99.026	into water	until day 3
N1933_922	Eukaryota; Opisthokonta; Fungi; Blastocladiomycota; Blastocladiomycetes; Blastocladiales; Blastocladiaceae; Allomyces; <i>Allomyces macrogynus</i> [#]	95	into water	until day 3
N453_9902	Eukaryota; Opisthokonta; Fungi; Chytridiomycota; Chytridiomycetes; Rhizophlyctidales; Rhizophlyctidaceae; Rhizophlyctis; <i>Rhizophlyctis rosea</i>	99.298	into water	until day 3
N1105_2532	Eukaryota; Opisthokonta; Fungi; environmental samples; uncultured fungus	92.669	into water	until day 3
N319_18715	Eukaryota; Opisthokonta; Fungi; environmental samples; uncultured fungus	99.609	into water	until day 3
N803_6163	Eukaryota; Opisthokonta; Fungi; environmental samples; uncultured fungus	99.048	into water	until day 3
N450_8126	Eukaryota; Opisthokonta; Fungi; environmental samples; uncultured soil fungus	89.521	into water	until day 3
N3942_207	Eukaryota; Opisthokonta; Fungi; Fungi incertae sedis; Olpidiaceae; Olpidium; <i>Olpidium brassicae</i>	99.373	into water	until day 3
N589_8244	Eukaryota; Rhizaria; Cercozoa; Cercomonadida; Heteromitidae; Bodomorpha; <i>Bodomorpha</i> sp. panama 115	94.969	into water	until day 3
N3252_320	Eukaryota; Stramenopiles; Chrysophyceae; Chromulinales; Chromulinaceae; Spumella; <i>Spumella vulgaris</i>	98.261	into water	until day 3
N2599_471	Eukaryota; Stramenopiles; Oomycetes; Lagenidiales; Lagenidiaceae; Lagenidium; <i>Lagenidium</i> aff. <i>deciduum</i> strain LEV5864	100	into water	until day 3
N218_21327	Eukaryota; Opisthokonta; Fungi; Dikarya; Ascomycota; saccharomyceta; Pezizomycotina; leotiomyceta; sordariomyceta; Sordariomycetes; Xylariomycetidae; Xylariales; Sporocadaceae; Bartaliniidae; <i>Bartaliniopsis pondoensis</i>	96.053	into water	until day 3*
N1178_4607	Eukaryota; Opisthokonta; Fungi; Dikarya; Basidiomycota; Agaricomycotina; Agaricomycetes; Agaricomycetes incertae sedis; Auriculariales; Auriculariaceae; environmental samples; uncultured Auriculariaceae	93.525	into water	until day 9
N1087_2513	Eukaryota; Stramenopiles; Oomycetes; Lagenidiales; Lagenidiaceae; Lagenidium; unclassified Lagenidium; <i>Lagenidium</i> sp. PWL-2010e	100	into water	until day 9
N1441_2936	Eukaryota; Opisthokonta; Fungi; environmental samples; uncultured fungus	99.324	into water	until day 9**
N988_4473	Eukaryota; Opisthokonta; Fungi; Fungi incertae sedis; Mucoromycotina; unclassified Mucoromycotina; mucoromycote sp. 18-M-1	99.65	into water	until the end
N1331_2684	Eukaryota; Opisthokonta; Fungi; Dikarya; Ascomycota; saccharomyceta; Pezizomycotina; leotiomyceta; Eurotiomycetes; Eurotiomycetidae; Eurotiales; Aspergillaceae; Aspergillus; <i>Aspergillus versicolor</i>	100	into water	until the end*
N1141_2169	Eukaryota; Alveolata; Dinophyceae; Gymnodiniales; Gymnodiniaceae; Nusuttdinium; <i>Nusuttdinium desymbiontum</i>	88.462	into water	until the end***
N3001_357	Eukaryota; Alveolata; Ciliophora; Intramacronucleata; Colpoda; Colpodida; Colpodidae; Bresslaua; <i>Bresslaua vorax</i>	97.917	into soil	at day 2
N3315_556	Eukaryota; Opisthokonta; Fungi; Dikarya; Basidiomycota; Agaricomycotina; Agaricomycetes; Agaricomycetes incertae sedis; Auriculariales; Auriculariaceae; environmental samples; uncultured Auriculariaceae	97.778	into soil	at day 2
N1597_1235	Eukaryota; Opisthokonta; Fungi; Dikarya; Basidiomycota; Agaricomycotina; Agaricomycetes; Agaricomycetes incertae sedis; Polyporales; Ganodermataceae; Ganoderma; <i>Ganoderma</i> sp. MU-2009-1 [#]	100	into soil	at day 2
N1616_2322	Eukaryota; Opisthokonta; Fungi; Dikarya; Basidiomycota; Agaricomycotina; Tremellomycetes; Trichosporonales; unclassified Trichosporonales; Trichosporonales sp. LM547	99.67	into soil	at day 2
N2665_508	Eukaryota; Opisthokonta; Fungi; Dikarya; Basidiomycota; Pucciniomycotina; Microbotryomycetes; Sporidiobolales; unclassified Sporidiobolales; Sporidiobolales sp. LM538	98.802	into soil	at day 2
N1142_2168	Eukaryota; Rhizaria; Cercozoa; Plasmodiophorida; Plasmodiophoridae; Polymyxia; Polymyxia graminis; <i>Polymyxia graminis</i> f. sp. tepida	95.308	into soil	at day 2
N773_4402	Eukaryota; Opisthokonta; Fungi; Chytridiomycota; environmental samples; uncultured Chytridiomycota	94.479	into soil	until the end**
N970_4134	Eukaryota; Opisthokonta; Fungi; Dikarya; Basidiomycota; environmental samples; uncultured Basidiomycota	93.564	into soil	until the end**

* missing at one time-point of sampling

** missing at two time-points of sampling

*** missing at three time-points of sampling

spores or microscopic parts of the fungi

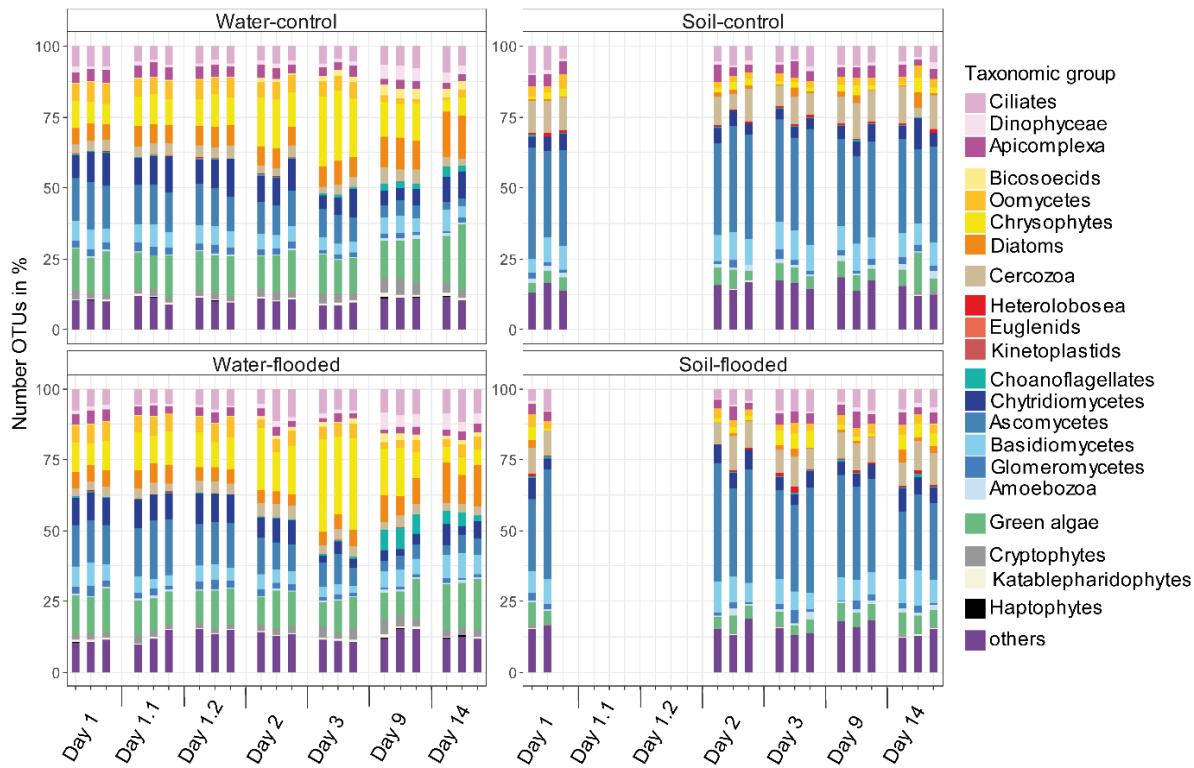


Figure S1. Community-composition based on number of OTUs (%) for aquatic non-flooded control samples and aquatic flooded samples (left) as well as terrestrial non-flooded samples and terrestrial flooded samples (right).

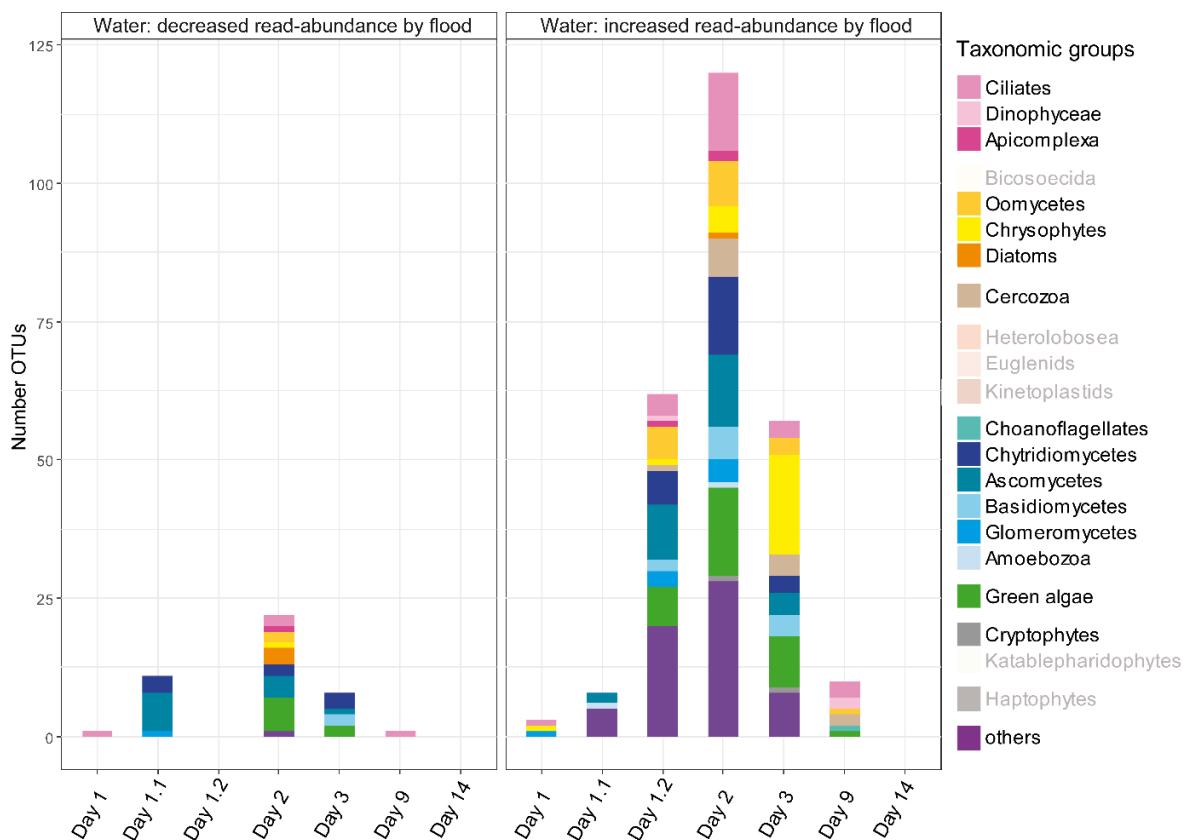


Figure S2. Taxonomic assignment of OTUs originating from water that have significant ($p < 0.05$) different read-abundances between the non-flooded control treatment and the flooded treatment. Flooding decreased the read-abundance of 43 OTUs (left) and increased the read abundance of 260 OTUs (right). Taxonomic groups represented by no OTU are illustrated in faded colour and grey text.