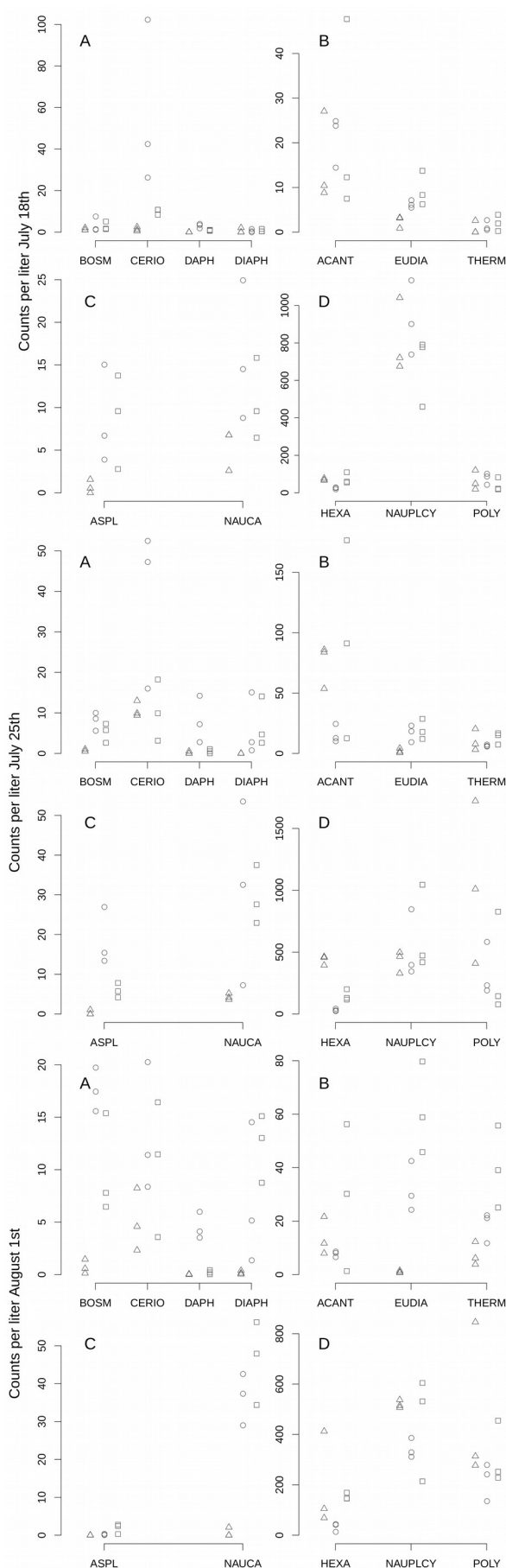


## Appendix 1

**Table A1. Fit of ontogeny-free, phylogeny-based models to zooplankton count data.** Ontogeny-including models (shaded), are as in Table 2 and are provided to ease comparison. Models were ranked according to their AIC score. All models included a 3-level fish treatment considering fish absent vs perch present vs roach present.

Candidate food-web Model	df	Deviance	Pseudo R <sup>2</sup>	BIC	AIC	Delta AIC
Phylogeny and ontogeny High resolution	39	2456	0.67	2681	2534	0
Phylogeny and ontogeny Medium resolution	34	2507	0.66	2704	2575	41
Phylogeny alone Medium resolution	28	2528	0.62	2690	2584	50
Body size x Behaviour	16	2597	0.59	2690	2629	95
Phylogeny alone High resolution	33	2598	0.41	2789	2664	130
Phylogeny alone Low resolution	13	2644	0.54	2719	2670	136
Phylogeny and ontogeny Low resolution	16	2638	0.57	2731	2670	136
Body size	10	2651	0.59	2708	2671	137
Behaviour	13	2661	0.50	2736	2687	153

**Figure A1. Zooplankton numerical response to fish treatments at each sampling date.** Circles:



fishless control treatment; triangles: perch treatment, squares: roach treatment. Model predictions are not shown due to model over-parametrization resulting in inaccurate predictions. Zooplankton taxa were separated among A: Cladocerans (BOSM = *Bosmina longirostris*, CERIO = *Ceriodaphnia pulchella* and *C. quadrangula*, DAPH = *Daphnia longispina* complex, DIAPH = *Diaphanosoma brachyurum*), B: Copepodite stages (ACANT = *Acanthocyclops robustus*, EUDIA: *Eudiaptomus gracilis*, THERM = *Thermocyclops crassus* and *Th. oithonoides*), C: NAUCA = nauplii of Calanoids, ASPL = *Asplanchna girodi* and *A. priodonta*, D: NAUPLCY = nauplii of Cyclopoids, HEXA = *Hexarthra mira*, POLY = *Polyarthra* sp.