

**Table S5.** BLUPs of each trait in *Daphnia pulex* JPN 1 clones.

Food concentration	Clone	Beta-glucosidase	Lipase	Alkaline Phosphatase	Arginine aminopeptidase	Alanine aminopeptidase	Maturation age	Maturation instar number	Maturation body length	Intermoult duration before maturation	Intermoult duration after maturation	<i>k</i>	Mean egg number of the first three clutches	Mean neonate size of the first three clutches	Body length at five days	Body weight at five days	Relative tail spine length of the first adult instar	$L_{\infty}$
2.0 mg C l	A1	99.96	0.00	9.91	25.57	24.81	0.35	0.11	-0.02	1.26E-16	0.004	-0.00435	-0.8	-0.00263	-0.2345	-0.00674	-0.066	-0.1
	A3	-44.63	0.00	-7.02	1.59	7.84	0.06	0.04	0.03	-1.58E-16	0.04	-0.00652	0.92	0.00365	0.031306	-0.00353	0.017	0.09
	A5	-2.53	0.00	65.77	-12.06	11.95	0.25	0.06	0.03	6.84E-17	-0.008	0.00285	1.66	0.001719	0.03734	0.001138	0.001	0.1
	A6	-28.65	0.00	-12.60	-2.57	-22.35	0.38	0.06	0.05	6.84E-17	-0.038	-0.00528	0.27	-0.00343	0.087577	0.003487	0.026	0.17
	B	-24.15	0.00	-56.05	-12.54	-22.25	-1.04	-0.28	-0.08	-1.05E-16	0.002	0.013304	-2.05	0.000696	0.078273	0.005653	0.023	-0.27
0.2 mg C l	A1	13.86	138.08	218.70	55.09	44.18	0.27	0.06	-0.05	0.02	-0.09	-0.02499	0.44	-0.08016	-0.15982	-0.00384	-0.049	0.02
	A3	-109.57	-37.02	111.98	12.03	1.02	0.15	0.31	-0.01	-0.07	0.01	-0.00893	-0.41	-0.00117	0.038599	-0.00092	0.022	0.01
	A5	29.17	-42.52	-54.34	-57.76	7.55	-0.01	-0.18	0.02	0.08	0.04	0.013427	0.2	0.027777	-0.04346	-0.00127	0.007	0.02
	A6	24.39	-136.70	221.04	85.27	-14.47	0.47	0.39	0.07	-0.02	0.03	0.007885	0.28	0.051587	0.112982	0.003746	0.005	0.03
	B	42.15	78.16	-497.38	-94.63	-38.28	-0.87	-0.58	-0.04	-0.01	0.01	0.012606	-0.52	0.001967	0.051698	0.002288	0.015	-0.07
Combined	A1	28.77	61.01	46.39	20.35	37.63	0.36	0.12	-0.04	0.004	0	-0.01419	-0.04	-0.0042	-0.20913	-0.0054	-0.057	-0.02
	A3	-45.21	-40.77	20.04	3.35	5.44	0.14	0.21	0.01	-0.013	0	-0.00813	0.07	0.000804	0.038016	-0.00221	0.019	0.03
	A5	8.61	-31.09	11.26	-17.47	10.88	0.1	-0.07	0.03	0.014	0	0.008132	0.33	0.001582	-0.00389	-8.60E-05	0.004	0.05
	A6	0.58	-52.82	39.09	20.57	-20.75	0.5	0.26	0.07	-0.002	0	0.00072	0.1	0.001584	0.106485	0.003703	0.015	0.08
	B	7.25	63.67	-116.78	-26.80	-33.20	-1.1	-0.53	-0.07	-0.003	0	0.013465	-0.47	0.000234	0.068525	0.003997	0.019	-0.15