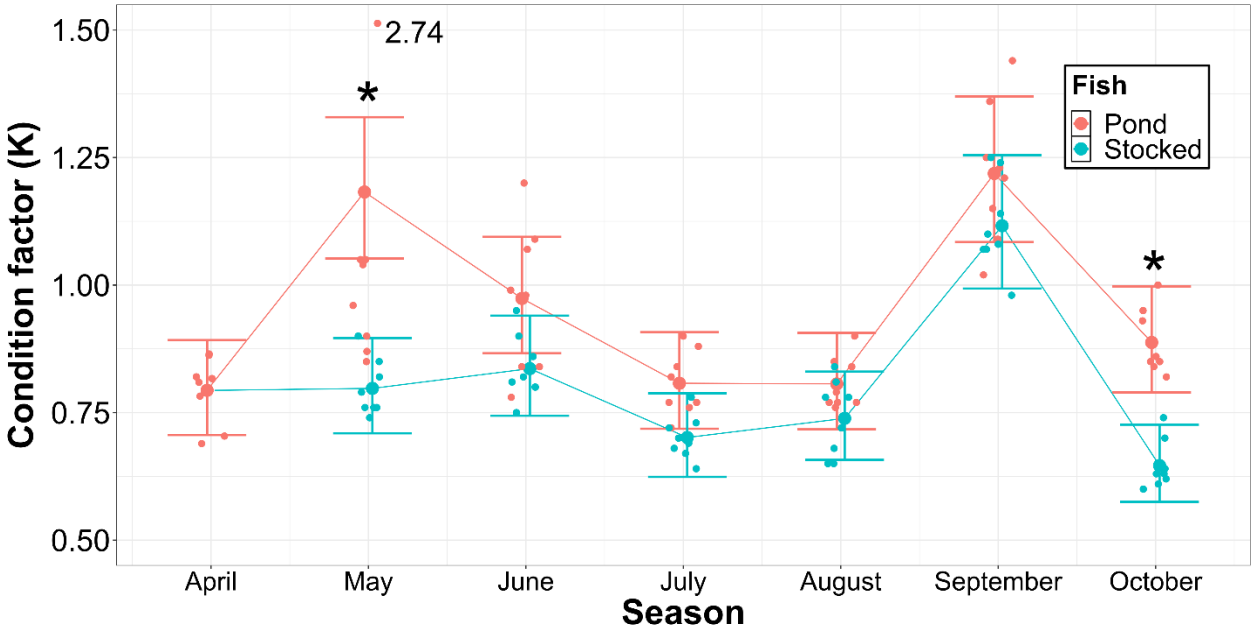

Figure S1. Generalized linear model (GLM) of Fulton's condition factor (K) with two European grayling (*Thymallus thymallus*) groups during the monitored period (April-October). A significant decrease of K in stocked fish from the stocked fish was detected in May and October. The plot highlights significant differences with asterisk (*) above the error bars, between the pond and stocked fish.

Table S1 Lipid content in European grayling of three groups, pond-reared, stocked, and wild (Oct*) during the monitored period. Values represent mean ± s.e.m. of liver and muscle lipid content (mg/g of wet weight), while visceral adipose tissue (VAT) encompasses entire lipid content in the VAT sample (lipid content mg/g of wet weight * weight of VAT *). The significance threshold for comparison of pond, stocked and wild groups in October was set at $\alpha = 0.05$.

fish group	Apr*	May	Jun	Jul	Avg	Sep	Oct	Oct*	Oct : Oct*
Muscle (pond)	44.4±5.8	88.6±12.2	55.6±3.6	49.1±5.6	44.0±2.9	55.1±12.1	37.7±3.5	13.4±4.1	p < 0.001
Muscle (stocked)		42.3±3.5	36.1±1.9	28.3±7.1	17.1±3.0	24.4±5.8	10.1±1.1		NS
Liver (pond)	36.9±8.3	58.5±15.4	35.8±4.4	19.9±3.0	20.6±2.5	24.0±2.1	21.4±2.9	25.8±1.4	NS
Liver (stocked)		36.0±12.5	17.7±2.4	12.6±1.8	17.3±2.8	17.2±2.5	22.1±1.3		NS
VAT (pond)	706±162	1106±394	1200±197	1331±383	1276±146	953±120	690±115	207.1±72.7	p < 0.004
VAT (stocked)		984.1±94.64	674.2±75.18	232.5± 38.06	202.1±54.3	127.6±11.2	25.9±1.6		p < 0.033

Apr* – Initial sampling from the pond before stocking

Oct* – Wild grayling group

NS - non significant differences

Table S2 Values of individual fatty acids (mg/g of w. w. ± s.e.m.) and FA groups (SFA, MUFA, PUFA, n-3/n-6, n-3 HUFA) in the muscle tissue of pond-reared European grayling.

name of FA	Apr	May	Jun	Jul	Aug	Sep	Oct
C14:0	0.50±0.07	0.41±0.04	0.54±0.04	0.50±0.07	0.39±0.02	0.29±0.04	0.31±0.04
C14:1	0.013±0.003	0.006±0.002	0.015±0.002	0.012±0.003	0.011±0.001	0.006±0.002	0.008±0.002
C16:0	2.98±0.36	2.47±0.26	3.10±0.20	2.92±0.37	2.64±0.14	2.00±0.19	2.49±0.20
C16:1	1.18±0.20	1.00±0.13	1.30±0.11	1.16±0.20	1.04±0.07	0.74±0.10	0.80±0.13
C18:0	0.40±0.04	0.47±0.04	0.45±0.03	0.48±0.06	0.46±0.04	0.32±0.03	0.36±0.02
C18:1n-9	16.05±2.05	9.98±1.56	14.10±1.32	13.91±1.76	13.64±0.60	11.20±1.36	17.46±1.29
C18:1n-7	1.29±0.17	0.93±0.10	1.20±0.10	1.16±0.13	1.07±0.05	0.85±0.09	1.11±0.09
C18:2n-6 (LA)	2.93±0.35	1.83±0.24	2.49±0.20	2.48±0.24	2.38±0.10	2.01±0.22	3.13±0.19
C18:3n-3 (ALA)	0.67±0.09	0.44±0.05	0.61±0.04	0.59±0.06	0.58±0.03	0.47±0.05	0.78±0.05
C20:1n-9	0.54±0.08	0.40±0.05	0.50±0.05	0.52±0.07	0.39±0.03	0.38±0.06	0.36±0.03
C20:2n-6	0.12±0.02	0.07±0.01	0.11±0.01	0.10±0.01	0.10±0.01	0.08±0.01	0.12±0.01
C20:4n-6 (AA)	0.15±0.01	0.13±0.01	0.14±0.01	0.12±0.01	0.12±0.01	0.10±0.01	0.11±0.01
C20:3n-3	0.026±0.04	0.017±0.001	0.025±0.002	0.026±0.003	0.023±0.002	0.017±0.003	0.026±0.002
C22:1n-9	0.061±0.008	0.040±0.005	0.055±0.005	0.052±0.005	0.047±0.004	0.039±0.005	0.049±0.004
C20:5n-3 (EPA)	0.64±0.07	0.63±0.04	0.67±0.04	0.62±0.05	0.50±0.03	0.40±0.03	0.36±0.03
C24:1n-9	0.052±0.005	0.037±0.004	0.049±0.003	0.046±0.005	0.042±0.002	0.032±0.003	0.044±0.003
C22:5n-3	0.36±0.04	0.32±0.03	0.36±0.02	0.36±0.02	0.31±0.02	0.25±0.02	0.20±0.03
C22:6n-3 (DHA)	3.99±0.29	4.04±0.17	4.10±0.21	4.40±0.28	3.98±0.17	3.17±0.20	3.22±0.20
SFA	3.93±0.48	3.36±0.35	4.12±0.27	3.94±0.50	3.52±0.19	2.62±0.25	3.20±0.27
MUFA	19.19±2.49	12.39±1.83	17.22±1.59	16.86±2.17	16.24±0.75	13.24±1.61	19.84±1.53
PUFA	8.89±0.85	7.47±0.45	8.50±0.51	8.71±0.63	8.00±0.34	6.49±0.48	7.95±0.48
n-3/n-6	1.84±0.10	2.93±0.34	2.15±0.09	2.25±0.12	2.08±0.03	2.05±0.15	1.37±0.05
n-3 HUFA	5.02±0.40	5.01±0.24	5.16±0.27	5.41±0.35	4.82±0.21	3.83±0.25	3.80±0.26
∑ FA	32.0±3.8	23.2±2.6	29.8±2.3	29.5±3.2	27.8±1.2	22.4±2.3	31.0±2.2

Table S3 Values of individual fatty acids (mg/g of w. w. ± s.e.m.) and FA groups (SFA, MUFA, PUFA, n-3/n-6, n-3 HUFA) in the muscle tissue of stocked and wild European grayling.

name of FA	Apr*	May	Jun	Jul	Aug	Sep	Oct	Oct*
C14:0	0.50±0.07	0.44±0.04	0.37±0.03	0.13±0.01	0.13±0.03	0.10±0.03	0.10±0.02	0.08±0.03
C14:1	0.013±0.003	0.010±0.002	0.008±0.001	0.002±0.000	0.003±0.001	0.002±0.001	0.001±0.000	0.002±0.001
C16:0	2.98±0.36	2.73±0.18	2.29±0.14	1.03±0.06	1.16±0.20	0.89±0.15	0.73±0.06	0.86±0.24
C16:1	1.18±0.20	1.16±0.12	0.98±0.07	0.30±0.04	0.39±0.12	0.27±0.08	0.10±0.02	0.27±0.18

C18:0	0.40±0.04	0.41±0.04	0.38±0.04	0.19±0.02	0.23±0.04	0.18±0.02	0.18±0.01	0.17±0.05
C18:1n-9	16.05±2.05	12.87±0.90	10.04±0.76	4.31±0.49	3.67±0.90	2.84±0.86	1.62±0.37	1.80±0.43
C18:1n-7	1.29±0.17	1.21±0.09	1.03±0.08	0.42±0.04	0.53±0.14	0.35±0.09	0.20±0.03	0.36±0.17
C18:2n-6 (LA)	2.93±0.35	2.35±0.15	1.82±0.15	0.78±0.08	0.75±0.18	0.52±0.15	0.35±0.07	0.48±0.18
C18:3n-3 (ALA)	0.67±0.09	0.59±0.05	0.50±0.06	0.18±0.02	0.25±0.07	0.14±0.04	0.08±0.01	0.10±0.04
C20:0	0.033±0.004	0.028±0.002	0.023±0.002	0.008±0.001	0.008±0.002	0.005±0.002	0.004±0.001	0.004±0.002
C20:1n-9	0.54±0.08	0.47±0.04	0.40±0.04	0.16±0.02	0.15±0.03	0.12±0.04	0.06±0.02	0.08±0.04
C20:2n-6	0.12±0.02	0.11±0.01	0.08±.0.01	0.04±0.00	0.03±0.01	0.02±0.01	0.02±0.00	0.02±0.01
C20:4n-6 (AA)	0.15±0.01	0.13±0.01	0.13±0.01	0.11±0.01	0.11±0.01	0.10±0.01	0.13±0.01	0.10±0.01
C20:3n-3	0.026±0.004	0.027±0.003	0.022±0.002	0.008±0.001	0.011±0.003	0.006±0.002	0.004±0.001	0.009±0.005
C22:1n-9	0.061±0.008	0.053±0.004	0.043±0.004	0.018±0.002	0.018±0.004	0.013±0.004	0.007±0.002	0.010±0.005
C20:5n-3 (EPA)	0.64±0.07	0.74±0.05	0.70±0.05	0.31±0.03	0.036±0.06	0.31±0.04	0.30±0.02	0.33±0.13
C24:1n-9	0.052±0.005	0.045±0.003	0.034±0.002	0.018±0.002	0.019±0.002	0.017±0.003	0.018±0.001	0.018±0.004
C22:5n-3	0.36±0.04	0.40±0.02	0.40±0.03	0.21±0.01	0.25±0.05	0.20±0.04	0.16±0.02	0.20±0.08
C22:6n-3 (DHA)	3.99±0.29	4.03±0.20	3.91±0.15	3.00±0.15	3.02±0.20	2.46±0.16	2.91±0.10	2.23±0.11
SFA	3.93±0.48	3.61±0.25	3.07±0.20	1.36±0.08	1.54±0.28	1.17±0.21	1.01±0.08	1.11±0.32
MUFA	19.19±2.49	15.82±1.12	12.53±0.91	5.23±0.58	4.78±1.17	3.60±1.07	2.00±0.43	3.20±1.22
PUFA	8.89±0.85	8.38±0.39	7.55±0.38	4.61±0.20	4.79±0.50	3.75±0.43	3.94±0.20	3.55±0.51
n-3/n-6	1.84±0.10	2.27±0.12	2.80±0.17	4.25±0.48	5.73±0.98	6.71±1.30	8.26±1.18	6.61±1.32
n-3 HUFA	5.02±0.40	5.20±0.25	5.02±0.20	3.51±0.17	3.64±0.30	2.98±0.23	3.37±0.13	2.76±0.32
∑ FA	32.0±3.8	27.8±1.7	23.2±1.4	11.2±0.8	11.1±1.9	8.8±1.9	7.0±0.7	7.87±1.93

Apr* – Initial sampling from pond

Oct* – Wild grayling group

Table S4 Values of individual fatty acids (mg/g of w. w. ± s.e.m.) and FA groups (SFA, MUFA, PUFA, n-3/n-6, n-3 HUFA) in the liver tissue of pond-reared European grayling.

name of FA	Apr	May	Jun	Jul	Avg	Sep	Oct
C14:0	0.50±0.07	0.41±0.04	0.54±0.04	0.50±0.07	0.39±0.02	0.29±0.04	0.31±0.04
C16:0	1.80±0.35	3.34±0.71	3.23±0.42	1.46±0.12	1.08±0.07	1.39±0.14	1.64±0.13
C16:1	1.10±0.37	2.71±0.76	1.39±0.24	0.28±0.08	0.20±0.05	0.23±0.05	0.21±0.06
C18:0	0.52±0.08	0.76±0.17	0.76±0.11	0.47±0.04	0.37±0.03	0.45±0.09	0.50±0.04
C18:1n-9	10.94±2.84	13.31±3.85	15.37±1.91	4.17±1.15	3.27±0.73	4.78±0.87	6.10±0.95
C18:1n-7	0.84±0.16	0.92±0.22	1.30±0.16	0.50±0.11	0.42±0.07	0.58±0.08	0.61±0.07
C18:2n-6 (LA)	0.95±0.14	0.47±0.13	1.76±0.19	0.69±0.13	0.66±0.10	0.88±0.12	1.17±0.10
C18:3n-3 (ALA)	0.09±0.02	0.07±0.02	0.34±0.04	0.16±0.02	0.14±0.02	0.20±0.02	0.24±0.02
C20:1n-9	0.28±0.06	0.34±0.09	0.52±0.07	0.13±0.04	0.09±0.02	0.14±0.03	0.14±0.04
C20:2n-6	0.11±0.02	0.05±0.01	0.19±0.02	0.06±0.01	0.08±0.01	0.10±0.01	0.13±0.02
C20:4n-6 (AA)	0.45±0.05	0.15±0.03	0.37±0.03	0.30±0.03	0.29±0.02	0.30±0.04	0.36±0.03
C20:3n-3	0.008±0.001	0.005±0.001	0.021±0.003	0.013±0.001	0.013±0.001	0.018±0.001	0.016±0.001

C22:1n-9	0.015±0.003	0.028±0.008	0.038±0.005	0.008±0.003	0.006±0.002	0.009±0.002	0.015±0.005
C20:5n-3 (EPA)	0.42±0.04	0.58±0.09	0.69±0.07	0.59±0.04	0.55±0.03	0.59±0.11	0.53±0.04
C24:1n-9	0.016±0.003	0.002±0.001	0.117±0.027	0.039±0.007	0.023±0.002	0.026±0.004	0.072±0.011
C22:5n-3	0.14±0.02	0.18±0.03	0.26±0.03	0.24±0.02	0.21±0.01	0.26±0.05	0.21±0.01
C22:6n-3 (DHA)	3.36±0.32	4.17±0.65	5.66±0.61	5.94±0.37	4.57±0.23	5.62±1.00	5.42±0.45
SFA	2.62±0.51	4.56±0.99	4.51±0.58	2.04±0.18	1.52±0.09	1.92±0.23	2.22±0.18
MUFA	13.20±3.42	17.34±4.90	18.75±2.31	5.13±1.40	4.01±0.87	5.76±1.01	7.16±1.11
PUFA	5.53±0.38	5.68±0.85	9.30±0.89	7.99±0.54	6.51±0.36	7.98±1.15	8.07±0.64
n-3/n-6	2.98±0.47	8.62±1.37	3.05±0.20	7.17±0.60	5.64±0.47	5.47±1.10	3.88±0.18
n-3 HUFA	3.93±0.35	4.93±0.77	6.64±0.69	6.79±0.43	5.34±0.26	6.49±1.16	6.17±0.50
∑ FA	18.0±4.05	23.40±6.05	26.89±2.99	9.22±1.74	7.47±1.09	10.04±1.16	11.83±1.49

Table S5 Values of individual fatty acids (mg/g of w. w. ± s.e.m.) and FA groups (SFA, MUFA, PUFA, n-3, n-6, n-3/n-6, n-3 HUFA) in the liver tissue of stocked and wild European grayling.

name of FA	Apr*	May	Jun	Jul	Aug	Sep	Oct	Oct*
C14:0	0.30±0.09	0.30±0.12	0.14±0.04	0.07±0.01	0.04±0.004	0.04±0.01	0.17±0.05	0.06±0.01
C16:0	1.80±0.35	2.39±0.59	1.63±0.24	1.35±0.10	1.50±0.09	0.93±0.07	1.19±0.14	1.37±0.06
C16:1	1.10±0.37	1.20±0.58	0.33±0.10	0.15±0.02	0.13±0.01	0.08±0.01	0.09±0.01	0.12±0.02
C18:0	0.52±0.08	0.80±0.25	0.49±0.05	0.45±0.04	0.61±0.05	0.39±0.04	0.57±0.08	0.61±0.09
C18:1n-9	10.94±2.84	11.63±6.12	2.80±0.77	2.37±0.18	1.84±0.22	1.29±0.07	1.84±0.26	2.44±0.51
C18:1n-7	0.84±0.16	1.35±0.49	0.58±0.10	0.39±0.03	0.46±0.03	0.30±0.03	0.42±0.05	0.54±0.09
C18:2n-6 (LA)	0.95±0.14	1.13±0.43	0.57±0.17	0.53±0.04	0.46±0.08	0.20±0.01	0.48±0.10	0.52±0.12
C18:3n-3 (ALA)	0.09±0.02	0.18±0.05	0.21±0.05	0.12±0.02	0.13±0.02	0.06±0.01	0.08±0.01	0.12±0.03
C20:1n-9	0.28±0.06	0.31±0.15	0.08±0.02	0.06±0.01	0.04±0.01	0.03±0.003	0.06±0.02	0.06±0.02
C20:2n-6	0.11±0.02	0.11±0.04	0.05±0.01	0.06±0.01	0.05±0.01	0.02±0.002	0.05±0.01	0.05±0.01
C20:4n-6 (AA)	0.45±0.05	0.28±0.03	0.48±0.09	0.59±0.06	0.49±0.06	0.25±0.01	0.37±0.06	0.41±0.04
C20:3n-3	0.008±0.001	0.018±0.003	0.021±0.004	0.014±0.001	0.015±0.002	0.007±0.001	0.008±0.001	0.015±0.004
C22:0	0.001±0.000	0.004±0.001	0.010±0.002	0.007±0.001	0.017±0.003	0.006±0.001	0.012±0.003	0.014±0.002
C20:5n-3 (EPA)	0.42±0.04	1.28±0.11	1.12±0.17	0.74±0.07	0.70±0.06	0.38±0.08	0.58±0.08	0.67±0.17
C24:1n-9	0.016±0.003	0.026±0.009	0.017±0.004	0.051±0.008	0.028±0.004	0.011±0.002	0.017±0.006	0.013±0.005
C22:5n-3	0.14±0.02	0.49±0.05	0.47±0.06	0.42±0.03	0.47±0.05	0.27±0.03	0.39±0.06	0.46±0.07
C22:6n-3 (DHA)	3.36±0.32	4.72±0.33	5.91±0.70	6.23±0.51	5.71±0.47	4.29±0.30	5.11±0.89	5.89±0.37
SFA	2.62±0.51	3.50±0.96	2.28±0.33	1.88±0.15	2.17±0.13	1.36±0.09	1.95±0.24	2.07±0.15
MUFA	13.20±3.42	14.55±7.35	3.82±0.98	3.03±0.22	2.50±0.24	1.71±0.09	2.43±0.33	3.17±0.52
PUFA	5.53±0.38	8.21±0.68	8.82±1.21	8.71±0.68	8.03±0.63	5.48±0.35	7.06±1.08	8.13±0.52
n-3/n-6	2.98±0.47	7.56±1.81	7.94±0.73	6.44±0.25	7.66±0.98	10.69±0.63	7.27±0.71	8.21±1.61
n-3 HUFA	3.93±0.35	6.51±0.40	7.52±0.91	7.41±0.58	6.89±0.53	4.95±0.33	6.09±0.97	7.03±0.45
∑ FA	18.0±4.05	21.54±8.79	9.01±1.80	7.38±0.52	7.16±0.63	4.26±0.24	6.33±0.82	7.64±0.98

Apr* – Initial sampling from pond

Oct* – Wild grayling group

Table S6 Values of FAs and FA groups (SFA, MUFA, PUFA, n-3/n-6, n-3 HUFA) in the visceral adipose tissue of pond-reared European grayling, expressed in mg/g of w. w. ± s.e.m.

name of FA	Apr	May	Jun	Jul	Avg	Sep	Oct
C16:0	19.8±2.2	30.9±2.8	22.6±0.8	18.7±1.3	24.3±1.8	17.7±1.1	18.8±1.1
C18:1n-9	143.7±13.7	163.8±10.3	134.0±5.9	122.0±6.8	172.1±13.0	149.9±9.1	180.6±8.5
C18:2n-6 (LA)	25.7±2.3	29.5±2.2	23.1±1.0	21.0±1.1	28.8±2.2	25.7±1.2	30.8±1.6
C20:5n-3 (EPA)	3.14±0.47	6.22±1.39	4.27±0.20	3.47±0.19	4.09±0.35	2.79±0.21	1.93±0.17
C22:6n-3 (DHA)	10.34±1.34	22.02±2.71	14.20±0.73	11.65±0.55	14.61±1.40	11.07±0.98	7.77±0.63
SFA	28.3±3.2	43.8±4.0	31.8±1.1	27.0±1.9	34.8±2.7	26.2±1.6	26.1±1.4
MUFA	170.4±16.5	204.1±12.4	163.2±7.2	147.0±8.2	204.8±15.5	175.7±10.5	204.6±9.4
PUFA	38.1±3.4	49.0±3.7	36.7±1.5	32.7±1.6	43.6±3.3	38.3±1.7	42.9±2.2
n-3 HUFA	5.28±0.74	10.52±1.92	6.78±0.31	5.81±0.31	6.90±0.62	5.79±0.44	3.39±0.38
n-3/n-6	0.40±0.03	0.57±0.07	0.49±0.01	0.47±0.01	0.44±0.01	0.41±0.02	0.33±0.01
∑ FA	247.0±24.0	318.8±20.8	245.9±9.9	218.3±11.9	297.8±22.6	250.7±13.7	281.3±13.0

Table S7 Values of FAs and FA groups (SFA, MUFA, PUFA, n-3/n-6, n-3 HUFA) in the in the visceral adipose tissue of stocked (Apr*-Oct) and wild (Oct*) European grayling, expressed in mg/g of w. w. ± s.e.m.

name of FA	Apr*	May	Jun	Jul	Avg	Sep	Oct	Oct*
C16:0	19.81±2.17	24.21±1.82	25.90±1.60	18.88±2.30	11.92±2.05	10.50±1.60	5.26±1.59	15.22±5.44
C18:1n-9	143.7±38.8	171.7±44.2	171.0±31.1	212.6±45.4	87.8±44.6	89.0±30.3	81.8±10.5	103.5±45.9
C18:2n-6 (LA)	25.69±2.27	31.07±3.54	30.02±1.62	35.29±2.56	16.40±3.78	14.67±2.06	13.47±4.74	27.35±8.69
C20:5n-3 (EPA)	3.14±0.47	4.54±0.58	5.83±0.97	3.35±0.61	3.04±0.75	2.61±0.56	0.64±0.14	3.76±2.29
C22:6n-3 (DHA)	10.34±1.34	12.93±1.46	14.12±0.82	10.75±1.29	6.98±0.95	6.65±0.98	1.82±0.74	4.28±2.82
SFA	28.3±3.2	34.4±2.5	37.5±2.2	30.1±3.2	17.5±2.7	16.7±2.4	9.7±3.0	26.6±10.1
MUFA	170.4±16.5	206.1±18.9	209.9±11.8	248.0±18.8	110.4±18.8	110.0±14.5	95.3±11.4	134.8±36.8
PUFA	38.1±3.4	47.7±5.2	49.5±2.7	50.8±4.2	28.5±4.9	25.4±3.4	17.5±2.0	31.9±2.8
n-3 HUFA	5.28±0.74	7.71±1.0	10.05±1.37	7.57±1.05	6.43±1.28	6.26±1.10	2.71±0.67	9.66±4.1
n-3/n-6	0.40±0.03	0.45±0.03	0.56±0.08	0.34±0.03	0.72±0.20	0.62±0.08	0.41±0.12	0.77±0.46
∑ FA	247.0±24.0	301.1±27.7	310.7±15.3	339.7±26.7	163.4±26.4	158.8±20.3	136.9±48.0	131.3±40.13

Apr* – Initial sampling from pond

Oct* – Wild grayling group

Table S8. Numerical prey abundance (mean ± s.e.m.) in the stomach content of stocked (May-Oct) and wild European grayling (Oct*).

May	Jun	Jul	Aug	Sep	Oct	Oct*
43±7	64±15	30±9	30±4	16±5	61±16	24±6