

Table S9. Fatty acid content(% of total fatty acids, mean \pm standard error, n = 9 fish per diet, 3 fish/replicate with 3 replicates/diet) of liver from rainbow trout fed experimental diets for 84 days (at the end of the experiment)

Fatty acids ^a	Reference	Diet ^b			F value	P value
		NI	NS	NIS		
Saturated fatty acid fractions						
14:00	2.0 ± 0.3	1.2 ± 0.0	1.3 ± 0.1	1.4 ± 0.1	1.78	0.23
15:00	0.1 ± 0.0	0.1 ± 0.0	0.0 ± 0.0	0.1 ± 0.0	3.47	0.07
16:00	20.1 ± 0.7	20.2 ± 0.2	21.8 ± 0.9	23.9 ± 1.3	2.71	0.12
17:00	0.2 ± 0.0	0.1 ± 0.0	0.1 ± 0.0	0.1 ± 0.0	2.64	0.12
18:00	3.5 ± 0.1 [b]	4.9 ± 0.2 [a]	4.4 ± 0.1 [a]	4.4 ± 0.1 [a]	38.64	< 0.01
20:00	0.2 ± 0.0 [b]	0.1 ± 0.1 [ab]	0.1 ± 0.1 [a]	0.2 ± 0.0 [a]	9.35	0.01
22:00	0.0 ± 0.0 [b]	0.1 ± 0.0 ^a	0.1 ± 0.0 [a]	0.1 ± 0.0 [a]	58.59	< 0.01
24:00:00	1.2 ± 1.6	1.2 ± 1.7	0.1 ± 0.0	0.1 ± 0.0	.82	0.52
Total SFA	30.0± 1.1	31.5 ± 0.6	33.2 ± 1.2	36.9 ± 1.7	3.18	0.09
Monounsaturated fatty acid fractions						
16:1n9	0.3 ± 0.1	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	3.98	0.05
16:1n7	5.0 ± 1.1	2.8 ± 0.4	2.4 ± 0.4	2.4 ± 0.1	1.40	0.31
18:1n9	28.3 ± 2.6	29.5 ± 1.9	26.9 ± 1.5	30.5 ± 0.5	0.37	0.78
18:1n7	3.1 ± 0.2	2.5 ± 0.1	2.5 ± 0.1	2.8 ± 0.1	1.02	0.44
20:1n9	6.5 ± 0.9	3.1 ± 0.2	2.9 ± 0.2	3.9 ± 0.1	3.12	0.09
20:1n7	0.2 ± 0.1	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	3.78	0.06
22:1n9	0.4 ± 0.1	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	3.90	0.06
24:1n9	0.3 ± 0.1	0.0 ± 0.0	0.0 ± 0.1	0.2 ± 0.1	1.48	0.29
Total MUFA	52.3 ± 3.9 [a]	39.6 ± 2.7 [b]	34.8 ± 2.2 [b]	39.8 ± 0.7 [b]	6.77	0.01
Omega-6 polyunsaturated fatty acid fractions						
18:2n6	4.2 ± 1.6	8.8 ± 0.5	8.8 ± 0.7	7.5 ± 0.5	1.44	0.30
18:3n6	0.0 ± 0.0	0.0 ± 0.0	0.1 ± 0.0	0.0 ± 0.0	0.60	0.63
20:2n6	1.0 ± 0.5	2.3 ± 0.2	2.2 ± 0.2	2.2 ± 0.2	1.22	0.40
20:3n6	0.8 ± 0.4	1.8 ± 0.2	1.9 ± 0.2	1.2 ± 0.1	1.31	0.34
20:4n6 ARA	1.2 ± 1.3	4.2 ± 0.7	4.8 ± 0.6	3.1 ± 0.3	1.05	0.42
22:4n6	0.1 ± 0.1	0.9 ± 0.5	0.2 ± 0.1	0.0 ± 0.0	1.58	0.30
22:5n6	1.0 ± 0.5	1.7 ± 0.2	2.2 ± 0.2	1.6 ± 0.2	2.33	0.15
Total n6 PUFA	5.8 ± 1.2 [b]	19.7 ± 1.2 [a]	20.1 ± 1.8 [a]	15.6 ± 1.2 [a]	18.18	< 0.01
Omega-3 polyunsaturated fatty acid fractions						
18:3n3 ALA	0.2 ± 0.1	0.6 ± 0.1	0.6 ± 0.1	0.6 ± 0.1	1.16	0.38
18:4n3	0.7 ± 0.0 [a]	0.6 ± 0.0 [a]	0.4 ± 0.0 [b]	0.4 ± 0.0 [b]	32.56	< 0.01
20:4n3	0.4 ± 0.0 [a]	0.2 ± 0.1 [ab]	0.2 ± 0.0 [ab]	0.2 ± 0.0 [b]	4.55	0.40
20:5n3 EPA	1.4 ± 0.4 [a]	0.5 ± 0.1 [ab]	0.8 ± 0.2 [b]	0.4 ± 0.1 [b]	7.27	0.01
22:5n3	0.4 ± 0.2	0.1 ± 0.1	0.1 ± 0.1	0.0 ± 0.0	2.54	0.13
22:6n3 DHA	10.8 ± 2.9	8.0 ± 1.0	10.5 ± 1.3	6.8 ± 0.9	2.06	0.19
Total n3 PUFA	11.8 ± 3.7	9.2 ± 1.2	12.0 ± 1.5	7.7 ± 1.0	0.62	0.62
Total PUFA	17.7 ± 4.9	28.9 ± 2.4	32.1 ± 3.2	23.3 ± 2.2	0.28	0.84

Total n6 LCPUFA	2.7 ± 0.8	10.4 ± 0.9	11.2 ± 1.1	8.1 ± 0.7	3.23	0.08
Total n3 LCPUFA	11.6 ± 3.7 [a]	8.6 ± 1.2 [b]	11.4 ± 1.4 [b]	7.2 ± 0.9 [b]	13.01	< 0.01
n3/n6 PUFA ratio	1.9 ± 0.2	0.5 ± 0.0	0.6 ± 0.0	0.5 ± 0.0	0.31	0.82
n3/n6 LCPUFA ratio	4.2 ± 0.1 [a]	0.8 ± 0.0 [b]	1.0 ± 0.0 [b]	0.9 ± 0.0 [b]	24.68	< 0.01
20:5n3 EPA/20:4n6 ARA	0.9 ± 0.0 [b]	8.1 ± 0.6 [a]	6.6 ± 1.1 [a]	8.9 ± 0.6 [a]	862.67	< 0.01

^aSFA refers to saturated fatty acids (sum of all fatty acids without double bonds); MUFA, monounsaturated fatty acids (sum of all fatty acids with a single bond, where ARA refers to arachidonic acid); PUFA, polyunsaturated fatty acids (sum of all fatty acids with ≥ 2 double bonds); n6 PUFA, omega 6 polyunsaturated fatty acids (18:2, 18:3, 20:2, 20:3, 20:4, 22:4, 22:5, where ALA refers to α -linolenic acid, EPA to eicosapentaenoic acid, DPA to docosapentaenoic acid, and DHA to docosahexaenoic acid); n6 LCPUFA, omega 6 long chain polyunsaturated fatty acids (20:2, 20:3, 20:4, 22:4, 22:5); n3 PUFA, omega 3 polyunsaturated fatty acids (18:3, 18:4, 20:3, 20:4, 20:5, 22:5, 22:6); n3 LCPUFA, omega 3 long chain polyunsaturated fatty acids (20:3, 20:4, 20:5, 22:5, 22:6); and n3:n6 ratio, calculated for total n3 PUFA: total n6 PUFA.

^bNI refers to *Nannochloropsis* sp. + *Isochrysis* sp.; NS, *Nannochloropsis* sp. + *Schizochytrium* sp.; NIS, *Nannochloropsis* sp. + *Isochrysis* sp. + *Schizochytrium* sp.; mean values not sharing a common bracketed letter in the same row differed significantly as determined by Tukey's HSD test, $P < 0.05$; both letters appearing together means no difference.