

Douglas R Tocher

List of Publications by Citations

Source: <https://exaly.com/author-pdf/6512877/douglas-r-tocher-publications-by-citations.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

361
papers

23,861
citations

82
h-index

141
g-index

367
ext. papers

26,529
ext. citations

3.9
avg, IF

7.33
L-index

#	Paper	IF	Citations
361	Metabolism and Functions of Lipids and Fatty Acids in Teleost Fish. <i>Reviews in Fisheries Science</i> , 2003 , 11, 107-184		1555
360	The lipid composition and biochemistry of freshwater fish. <i>Progress in Lipid Research</i> , 1987 , 26, 281-347	14.3	819
359	Recent developments in the essential fatty acid nutrition of fish. <i>Aquaculture</i> , 1999 , 177, 191-199	4.4	746
358	Fatty acid requirements in ontogeny of marine and freshwater fish. <i>Aquaculture Research</i> , 2010 , 41, 717-732	7.2	615
357	Lipid nutrition of marine fish during early development: current status and future directions. <i>Aquaculture</i> , 1999 , 179, 217-229	4.4	581
356	Replacement of fish oil with rapeseed oil in diets of Atlantic salmon (<i>Salmo salar</i>) affects tissue lipid compositions and hepatocyte fatty acid metabolism. <i>Journal of Nutrition</i> , 2001 , 131, 1535-43	4.1	488
355	Omega-3 long-chain polyunsaturated fatty acids and aquaculture in perspective. <i>Aquaculture</i> , 2015 , 449, 94-107	4.4	377
354	The role of phospholipids in nutrition and metabolism of teleost fish. <i>Aquaculture</i> , 2008 , 280, 21-34	4.4	373
353	Requirement criteria for essential fatty acids. <i>Journal of Applied Ichthyology</i> , 1995 , 11, 183-198	0.9	350
352	Substituting fish oil with crude palm oil in the diet of Atlantic salmon (<i>Salmo salar</i>) affects muscle fatty acid composition and hepatic fatty acid metabolism. <i>Journal of Nutrition</i> , 2002 , 132, 222-30	4.1	344
351	Fatty acid compositions of the major phosphoglycerides from fish neural tissues; (n-3) and (n-6) polyunsaturated fatty acids in rainbow trout (<i>Salmo gairdneri</i>) and cod (<i>Gadus morhua</i>) brains and retinas. <i>Fish Physiology and Biochemistry</i> , 1988 , 5, 229-39	2.7	314
350	Analyses of lipids and fatty acids in ripe roes of some Northwest European marine fish. <i>Lipids</i> , 1984 , 19, 492-9	1.6	276
349	Tailoring of Atlantic salmon (<i>Salmo salar</i> L.) flesh lipid composition and sensory quality by replacing fish oil with a vegetable oil blend. <i>Journal of Agricultural and Food Chemistry</i> , 2005 , 53, 10166-78	5.7	269
348	A vertebrate fatty acid desaturase with Delta 5 and Delta 6 activities. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001 , 98, 14304-9	11.5	266
347	Altered fatty acid compositions in atlantic salmon (<i>Salmo salar</i>) fed diets containing linseed and rapeseed oils can be partially restored by a subsequent fish oil finishing diet. <i>Journal of Nutrition</i> , 2003 , 133, 2793-801	4.1	247
346	Impact of sustainable feeds on omega-3 long-chain fatty acid levels in farmed Atlantic salmon, 2006-2015. <i>Scientific Reports</i> , 2016 , 6, 21892	4.9	243
345	Replacement of dietary fish oil with increasing levels of linseed oil: modification of flesh fatty acid compositions in Atlantic salmon (<i>Salmo salar</i>) using a fish oil finishing diet. <i>Lipids</i> , 2004 , 39, 223-32	1.6	230

344	Recent advances in the biochemistry and molecular biology of fatty acyl desaturases. <i>Progress in Lipid Research</i> , 1998 , 37, 73-117	14.3	228
343	Long-chain polyunsaturated fatty acid biosynthesis in chordates: Insights into the evolution of Fads and Elovl gene repertoire. <i>Progress in Lipid Research</i> , 2016 , 62, 25-40	14.3	215
342	Omega-3 Long-Chain Polyunsaturated Fatty Acids, EPA and DHA: Bridging the Gap between Supply and Demand. <i>Nutrients</i> , 2019 , 11,	6.7	209
341	Vertebrate fatty acyl desaturase with Δ activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 16840-5	11.5	194
340	Biosynthesis of polyunsaturated fatty acids in marine invertebrates: recent advances in molecular mechanisms. <i>Marine Drugs</i> , 2013 , 11, 3998-4018	6	189
339	Increased activities of hepatic antioxidant defence enzymes in juvenile gilthead sea bream (<i>Sparus aurata</i> L.) fed dietary oxidised oil: attenuation by dietary vitamin E. <i>Aquaculture</i> , 2002 , 214, 343-361	4.4	186
338	Highly unsaturated fatty acid synthesis in Atlantic salmon: characterization of ELOVL5- and ELOVL2-like elongases. <i>Marine Biotechnology</i> , 2009 , 11, 627-39	3.4	183
337	Effects of purified diets containing different combinations of arachidonic and docosahexaenoic acid on survival, growth and fatty acid composition of juvenile turbot (<i>Scophthalmus maximus</i>). <i>Aquaculture</i> , 1994 , 128, 315-333	4.4	180
336	Highly unsaturated fatty acid synthesis in marine fish: cloning, functional characterization, and nutritional regulation of fatty acyl delta 6 desaturase of Atlantic cod (<i>Gadus morhua</i> L.). <i>Lipids</i> , 2006 , 41, 1003-16	1.6	174
335	Functional genomics reveals increases in cholesterol biosynthetic genes and highly unsaturated fatty acid biosynthesis after dietary substitution of fish oil with vegetable oils in Atlantic salmon (<i>Salmo salar</i>). <i>BMC Genomics</i> , 2008 , 9, 299	4.5	171
334	Towards Fish Lipid Nutrigenomics: Current State and Prospects for Fin-Fish Aquaculture. <i>Reviews in Fisheries Science</i> , 2008 , 16, 73-94		171
333	Effects of dietary vitamin E on antioxidant defence mechanisms of juvenile turbot (<i>Scophthalmus maximus</i> L.), halibut (<i>Hippoglossus hippoglossus</i> L.) and sea bream (<i>Sparus aurata</i> L.). <i>Aquaculture Nutrition</i> , 2002 , 8, 195-207	3.2	169
332	Highly unsaturated fatty acid synthesis in vertebrates: new insights with the cloning and characterization of a delta6 desaturase of Atlantic salmon. <i>Lipids</i> , 2005 , 40, 13-24	1.6	165
331	Environmental and dietary influences on highly unsaturated fatty acid biosynthesis and expression of fatty acyl desaturase and elongase genes in liver of Atlantic salmon (<i>Salmo salar</i>). <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2005 , 1734, 13-24	5	164
330	Three peroxisome proliferator-activated receptor isotypes from each of two species of marine fish. <i>Endocrinology</i> , 2005 , 146, 3150-62	4.8	164
329	The effect of dietary lipid on polyunsaturated fatty acid metabolism in Atlantic salmon (<i>Salmo salar</i>) undergoing parr-smolt transformation. <i>Lipids</i> , 1997 , 32, 515-25	1.6	161
328	Polyunsaturated fatty acid metabolism in Atlantic salmon (<i>Salmo salar</i>) undergoing parr-smolt transformation and the effects of dietary linseed and rapeseed oils. <i>Fish Physiology and Biochemistry</i> , 2000 , 23, 59-73	2.7	158
327	Characterization and comparison of fatty acyl Delta6 desaturase cDNAs from freshwater and marine teleost fish species. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2004 , 139, 269-79	2.3	150

326	Molecular cloning and functional characterization of fatty acyl desaturase and elongase cDNAs involved in the production of eicosapentaenoic and docosahexaenoic acids from alpha-linolenic acid in Atlantic salmon (<i>Salmo salar</i>). <i>Marine Biotechnology</i> , 2004 , 6, 463-74	3.4	149
325	Physiological roles of fatty acyl desaturases and elongases in marine fish: Characterisation of cDNAs of fatty acyl Δ desaturase and elovl5 elongase of cobia (<i>Rachycentron canadum</i>). <i>Aquaculture</i> , 2009 , 290, 122-131	4.4	135
324	Effects of diets containing vegetable oil on expression of genes involved in highly unsaturated fatty acid biosynthesis in liver of Atlantic salmon (<i>Salmo salar</i>). <i>Aquaculture</i> , 2004 , 236, 467-483	4.4	134
323	Egg quality determinants in cod (<i>Gadus morhua</i> L.): egg performance and lipids in eggs from farmed and wild broodstock. <i>Aquaculture Research</i> , 2005 , 36, 1488-1499	1.9	130
322	Effects of different dietary arachidonic acid : docosahexaenoic acid ratios on phospholipid fatty acid compositions and prostaglandin production in juvenile turbot (<i>Scophthalmus maximus</i>). <i>Fish Physiology and Biochemistry</i> , 1995 , 14, 139-51	2.7	129
321	Cloning and functional characterisation of polyunsaturated fatty acid elongases of marine and freshwater teleost fish. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2005 , 142, 342-52	2.3	127
320	Fatty acid metabolism in marine fish: low activity of fatty acyl Δ 5 desaturation in gilthead sea bream (<i>Sparus aurata</i>) cells. <i>Lipids</i> , 1999 , 34, 433-40	1.6	126
319	Genotype-specific responses in Atlantic salmon (<i>Salmo salar</i>) subject to dietary fish oil replacement by vegetable oil: a liver transcriptomic analysis. <i>BMC Genomics</i> , 2011 , 12, 255	4.5	125
318	Hepatocyte fatty acid desaturation and polyunsaturated fatty acid composition of liver in salmonids: effects of dietary vegetable oil. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2001 , 130, 257-70	2.3	124
317	Genes for de novo biosynthesis of omega-3 polyunsaturated fatty acids are widespread in animals. <i>Science Advances</i> , 2018 , 4, eaar6849	14.3	123
316	Effect of supplementation with 20:3(n-6), 20:4(n-6) and 20:5(n-3) on the production of prostaglandins E and F of the 1-, 2- and 3-series in turbot (<i>Scophthalmus maximus</i>) brain astroglial cells in primary culture. <i>Lipids and Lipid Metabolism</i> , 1994 , 1211, 335-42		121
315	Effects of dietary vegetable oil on Atlantic salmon hepatocyte fatty acid desaturation and liver fatty acid compositions. <i>Lipids</i> , 2003 , 38, 723-32	1.6	119
314	Dioxin and dioxin-like polychlorinated biphenyls (PCBs) in Scottish farmed salmon (<i>Salmo salar</i>): effects of replacement of dietary marine fish oil with vegetable oils. <i>Aquaculture</i> , 2005 , 243, 305-314	4.4	117
313	Transcriptional control mechanisms of genes of lipid and fatty acid metabolism in the Atlantic salmon (<i>Salmo salar</i> L.) established cell line, SHK-1. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2011 , 1811, 194-202	5	116
312	Effects of diets containing linseed oil on fatty acid desaturation and oxidation in hepatocytes and intestinal enterocytes in Atlantic salmon (<i>Salmo salar</i>). <i>Fish Physiology and Biochemistry</i> , 2002 , 26, 157-170	2.7	116
311	Long chain polyunsaturated fatty acid synthesis in a marine vertebrate: ontogenetic and nutritional regulation of a fatty acyl desaturase with Δ activity. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2012 , 1821, 660-71	5	112
310	Nutritional regulation of hepatocyte fatty acid desaturation and polyunsaturated fatty acid composition in zebrafish (<i>Danio rerio</i>) and tilapia (<i>Oreochromis niloticus</i>). <i>Fish Physiology and Biochemistry</i> , 2001 , 24, 309-320	2.7	111
309	Thin-layer chromatography \square flame ionization detection and the quantitation of marine neutral lipids and phospholipids. <i>Journal of Experimental Marine Biology and Ecology</i> , 1985 , 88, 91-99	2.1	111

308	Depletion of alpha-tocopherol and astaxanthin in Atlantic salmon (<i>Salmo salar</i>) affects autoxidative defense and fatty acid metabolism. <i>Journal of Nutrition</i> , 2000 , 130, 1800-8	4.1	109
307	Evaluation of a high-EPA oil from transgenic in feeds for Atlantic salmon (<i>L.</i>): Effects on tissue fatty acid composition, histology and gene expression. <i>Aquaculture</i> , 2015 , 444, 1-12	4.4	106
306	A nutritionally-enhanced oil from transgenic <i>Camelina sativa</i> effectively replaces fish oil as a source of eicosapentaenoic acid for fish. <i>Scientific Reports</i> , 2015 , 5, 8104	4.9	106
305	Effect of partial substitution of dietary fish oil by vegetable oils on desaturation and oxidation of [1-14C]18:3n3 (LNA) and [1-14C]20:5n3 (EPA) in hepatocytes and enterocytes of European sea bass (<i>Dicentrarchus labrax L.</i>). <i>Aquaculture</i> , 2005 , 248, 173-186	4.4	106
304	Fatty acid composition of phospholipids and neutral lipids during embryonic and early larval development in Atlantic herring (<i>Clupea harengus, L.</i>). <i>Lipids</i> , 1985 , 20, 69-74	1.6	105
303	Multiple genes for functional 6 fatty acyl desaturases (Fad) in Atlantic salmon (<i>Salmo salar L.</i>): gene and cDNA characterization, functional expression, tissue distribution and nutritional regulation. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2010 , 1801, 1072-81	5	104
302	Zebrafish cDNA encoding multifunctional Fatty Acid elongase involved in production of eicosapentaenoic (20:5n-3) and docosahexaenoic (22:6n-3) acids. <i>Marine Biotechnology</i> , 2004 , 6, 251-61	3.4	104
301	Elongation of long-chain fatty acids in rabbitfish <i>Signanus canaliculatus</i> : Cloning, functional characterisation and tissue distribution of Elovl5- and Elovl4-like elongases. <i>Aquaculture</i> , 2012 , 350-353, 63-70	4.4	102
300	Effects of dietary docosahexaenoic acid (DHA; 22:6n3) on lipid and fatty acid compositions and growth in gilthead sea bream (<i>Sparus aurata L.</i>) larvae during first feeding. <i>Aquaculture</i> , 1993 , 112, 79-98	4.4	101
299	Fatty acid metabolism in Atlantic salmon (<i>Salmo salar L.</i>) hepatocytes and influence of dietary vegetable oil. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2005 , 1734, 277-88	5	100
298	Specific accumulation of docosahexaenoic acid (22:6n3) in brain lipids during development of juvenile turbot <i>Scophthalmus maximus L.</i> . <i>Lipids</i> , 1991 , 26, 871-877	1.6	97
297	Review of climate change impacts on marine aquaculture in the UK and Ireland. <i>Aquatic Conservation: Marine and Freshwater Ecosystems</i> , 2012 , 22, 389-421	2.6	95
296	Dietary rapeseed oil affects the expression of genes involved in hepatic lipid metabolism in Atlantic salmon (<i>Salmo salar L.</i>). <i>Journal of Nutrition</i> , 2005 , 135, 2355-61	4.1	95
295	Functional desaturase Fads1 (B) and Fads2 (B) orthologues evolved before the origin of jawed vertebrates. <i>PLoS ONE</i> , 2012 , 7, e31950	3.7	95
294	Delta-8 desaturation activity varies among fatty acyl desaturases of teleost fish: high activity in delta-6 desaturases of marine species. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2011 , 159, 206-13	2.3	94
293	Lipid class composition during embryonic and early larval development in Atlantic herring (<i>Clupea harengus, L.</i>). <i>Lipids</i> , 1985 , 20, 84-9	1.6	94
292	Low C18 to C20 fatty acid elongase activity and limited conversion of stearidonic acid, 18:4(n-3), to eicosapentaenoic acid, 20:5(n-3), in a cell line from the turbot, <i>Scophthalmus maximus</i> . <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 1999 , 1437, 170-81	5	93
291	Influence of dietary palm oil on growth, tissue fatty acid compositions, and fatty acid metabolism in liver and intestine in rainbow trout (<i>Oncorhynchus mykiss</i>). <i>Aquaculture Nutrition</i> , 2005 , 11, 241-250	3.2	91

290	Effects of dietary lipid level and vegetable oil on fatty acid metabolism in Atlantic salmon (<i>Salmo salar</i> L.) over the whole production cycle. <i>Fish Physiology and Biochemistry</i> , 2003 , 29, 193-209	2.7	89
289	Expression of long-chain polyunsaturated fatty acid (LC-PUFA) biosynthesis genes during zebrafish <i>Danio rerio</i> early embryogenesis. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2009 , 1791, 1093-101	5	88
288	Comparative study of antioxidant defence mechanisms in marine fish fed variable levels of oxidised oil and vitamin E. <i>Aquaculture International</i> , 2003 , 11, 195-216	2.6	88
287	The Lipids 2003 , 181-257		88
286	Microbial and genetically engineered oils as replacements for fish oil in aquaculture feeds. <i>Biotechnology Letters</i> , 2017 , 39, 1599-1609	3	87
285	Expression and role of Elovl4 elongases in biosynthesis of very long-chain fatty acids during zebrafish <i>Danio rerio</i> early embryonic development. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2010 , 1801, 1145-54	5	87
284	Relationships between antioxidants, antioxidant enzyme activities and lipid peroxidation products during early development in <i>Dentex dentex</i> eggs and larvae. <i>Aquaculture</i> , 1999 , 179, 309-324	4.4	86
283	Effects of diets rich in linoleic (18:2n - 6) and linolenic (18:3n - 3) acids on the growth, lipid class and fatty acid compositions and eicosanoid production in juvenile turbot (<i>Scophthalmus maximus</i> L.). <i>Fish Physiology and Biochemistry</i> , 1994 , 13, 105-18	2.7	86
282	Effects of water temperature and diets containing palm oil on fatty acid desaturation and oxidation in hepatocytes and intestinal enterocytes of rainbow trout (<i>Oncorhynchus mykiss</i>). <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2004 , 137, 49-63	2.3	85
281	Effects of increasing replacement of dietary fishmeal with plant protein sources on growth performance and body lipid composition of Atlantic salmon (<i>Salmo salar</i> L.). <i>Aquaculture</i> , 2010 , 305, 124-132	4.4	84
280	Biosynthesis of polyunsaturated fatty acids in aquatic ecosystems: general pathways and new directions 2009 , 211-236		84
279	Fatty acyl desaturation in isolated hepatocytes from Atlantic salmon (<i>Salmo salar</i>): stimulation by dietary borage oil containing gamma-linolenic acid. <i>Lipids</i> , 1997 , 32, 1237-47	1.6	82
278	Effect of dietary echium oil on growth, fatty acid composition and metabolism, gill prostaglandin production and macrophage activity in Atlantic cod (<i>Gadus morhua</i> L.). <i>Aquaculture Research</i> , 2006 , 37, 606-617	1.9	82
277	Growth, flesh adiposity and fatty acid composition of Atlantic salmon (<i>Salmo salar</i>) families with contrasting flesh adiposity: Effects of replacement of dietary fish oil with vegetable oils. <i>Aquaculture</i> , 2010 , 306, 225-232	4.4	81
276	Investigation of highly unsaturated fatty acid metabolism in the Asian sea bass, <i>Lates calcarifer</i> . <i>Fish Physiology and Biochemistry</i> , 2010 , 36, 827-43	2.7	79
275	Red blood cell fatty acid compositions in a patient with autistic spectrum disorder: a characteristic abnormality in neurodevelopmental disorders?. <i>Prostaglandins Leukotrienes and Essential Fatty Acids</i> , 2000 , 63, 21-5	2.8	78
274	Diversification of substrate specificities in teleostei Fads2: characterization of β and $\beta\beta$ desaturases of <i>Chirostoma estor</i> . <i>Journal of Lipid Research</i> , 2014 , 55, 1408-19	6.3	77
273	Interferon type I and type II responses in an Atlantic salmon (<i>Salmo salar</i>) SHK-1 cell line by the salmon TRAIT/SGP microarray. <i>Physiological Genomics</i> , 2007 , 32, 33-44	3.6	77

272	Effects of genotype and dietary fish oil replacement with vegetable oil on the intestinal transcriptome and proteome of Atlantic salmon (<i>Salmo salar</i>). <i>BMC Genomics</i> , 2012 , 13, 448	4.5	75
271	Expression of fatty acyl desaturase and elongase genes, and evolution of DHA:EPA ratio during development of unfed larvae of Atlantic bluefin tuna (<i>Thunnus thynnus</i> L.). <i>Aquaculture</i> , 2011 , 313, 129-139	4.4	75
270	Molecular and functional characterization and expression analysis of a δ fatty acyl desaturase cDNA of European Sea Bass (<i>Dicentrarchus labrax</i> L.). <i>Aquaculture</i> , 2009 , 298, 90-100	4.4	75
269	Effect of temperature on the incorporation into phospholipid classes and metabolism via desaturation and elongation of n δ and n δ polyunsaturated fatty acids in fish cells in culture. <i>Lipids</i> , 1990 , 25, 435-442	1.6	75
268	Two alternative pathways for docosahexaenoic acid (DHA, 22:6n-3) biosynthesis are widespread among teleost fish. <i>Scientific Reports</i> , 2017 , 7, 3889	4.9	74
267	Biosynthesis of long-chain polyunsaturated fatty acids in marine fish: Characterization of an Elovl4-like elongase from cobia <i>Rachycentron canadum</i> and activation of the pathway during early life stages. <i>Aquaculture</i> , 2011 , 312, 145-153	4.4	73
266	Ontogenic effects of early feeding of sea bass (<i>Dicentrarchus labrax</i>) larvae with a range of dietary n-3 highly unsaturated fatty acid levels on the functioning of polyunsaturated fatty acid desaturation pathways. <i>British Journal of Nutrition</i> , 2009 , 101, 1452-62	3.6	72
265	Conservation of lipid metabolic gene transcriptional regulatory networks in fish and mammals. <i>Gene</i> , 2014 , 534, 1-9	3.8	71
264	Biosynthesis of very long-chain fatty acids (C>24) in Atlantic salmon: cloning, functional characterisation, and tissue distribution of an Elovl4 elongase. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2011 , 159, 122-9	2.3	71
263	The fatty acid compositions of established fish cell lines after long-term culture in mammalian sera. <i>Fish Physiology and Biochemistry</i> , 1988 , 5, 219-27	2.7	70
262	Long-chain polyunsaturated fatty acid synthesis in fish: Comparative analysis of Atlantic salmon (<i>Salmo salar</i> L.) and Atlantic cod (<i>Gadus morhua</i> L.) Delta6 fatty acyl desaturase gene promoters. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2009 , 154, 255-63	2.3	69
261	Effects of weaning onto a pelleted diet on docosahexaenoic acid (22: 6 n-3) levels in brain of developing turbot (<i>Scophthalmus maximus</i> L.). <i>Aquaculture</i> , 1992 , 105, 363-377	4.4	69
260	Replacement of Marine Fish Oil with de novo Omega-3 Oils from Transgenic <i>Camelina sativa</i> in Feeds for Gilthead Sea Bream (<i>Sparus aurata</i> L.). <i>Lipids</i> , 2016 , 51, 1171-1191	1.6	69
259	Transcriptomic analyses of intestinal gene expression of juvenile Atlantic cod (<i>Gadus morhua</i>) fed diets with Camelina oil as replacement for fish oil. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2012 , 161, 283-93	2.3	68
258	In vivo metabolism of [1-14C]linolenic acid (18:3(n-3)) and [1-14C]eicosapentaenoic acid (20:5(n-3)) in a marine fish: time-course of the desaturation/elongation pathway. <i>Lipids and Lipid Metabolism</i> , 1994 , 1212, 109-18		68
257	Does dietary tocopherol level affect fatty acid metabolism in fish?. <i>Fish Physiology and Biochemistry</i> , 2007 , 33, 269-280	2.7	66
256	Incorporation and metabolism of (14)C-labelled polyunsaturated fatty acids in juvenile gilthead sea bream <i>Sparus aurata</i> L. in vivo. <i>Fish Physiology and Biochemistry</i> , 1993 , 10, 443-53	2.7	66
255	Functional characterisation of a Fads2 fatty acyl desaturase with δ / δ activity and an Elovl5 with C16, C18 and C20 elongase activity in the anadromous teleost meagre (<i>Argyrosomus regius</i>). <i>Aquaculture</i> , 2013 , 412-413, 14-22	4.4	65

254	Molecular cloning, tissue expression and regulation of liver X receptor (LXR) transcription factors of Atlantic salmon (<i>Salmo salar</i>) and rainbow trout (<i>Oncorhynchus mykiss</i>). <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2009 , 153, 81-8	2.3	64
253	Molecular characterization of three peroxisome proliferator-activated receptors from the sea bass (<i>Dicentrarchus labrax</i>). <i>Lipids</i> , 2004 , 39, 1085-92	1.6	64
252	Identification of a Δ -like fatty acyl desaturase from the cephalopod <i>Octopus vulgaris</i> (Cuvier 1797) involved in the biosynthesis of essential fatty acids. <i>Marine Biotechnology</i> , 2012 , 14, 411-22	3.4	62
251	Metabolism of [1-14C]docosahexaenoate (22:6n ω), [1-14C]eicosapentaenoate (20:5n ω) and [1-14C]linolenate (18:3n ω) in brain cells from juvenile turbot <i>Scophthalmus maximus</i> . <i>Lipids</i> , 1992 , 27, 494-499	1.6	62
250	Incorporation into phospholipid classes and metabolism via desaturation and elongation of various 14C-labelled (n-3) and (n-6) polyunsaturated fatty acids in trout astrocytes in primary culture. <i>Journal of Neurochemistry</i> , 1990 , 54, 2118-24	6	61
249	Effects of dietary polyunsaturated fatty acid/vitamin E (PUFA/tocopherol ratio on antioxidant defence mechanisms of juvenile gilthead sea bream (<i>Sparus aurata</i> L., Osteichthyes, Sparidae). <i>Fish Physiology and Biochemistry</i> , 2000 , 23, 337-351	2.7	60
248	Future availability of raw materials for salmon feeds and supply chain implications: The case of Scottish farmed salmon. <i>Aquaculture</i> , 2017 , 467, 49-62	4.4	59
247	Polyunsaturated fatty acid metabolism in fish cells: differential metabolism of (n-3) and (n-6) series acids by cultured cells originating from a freshwater teleost fish and from a marine teleost fish. <i>Comparative Biochemistry and Physiology Part B: Comparative Biochemistry</i> , 1989 , 94, 367-74		59
246	A description of the origins, design and performance of the TRAITS-SGP Atlantic salmon <i>Salmo salar</i> L. cDNA microarray. <i>Journal of Fish Biology</i> , 2008 , 72, 2071-2094	1.9	58
245	Issues surrounding fish as a source of omega-3 long-chain polyunsaturated fatty acids. <i>Lipid Technology</i> , 2009 , 21, 13-16		57
244	Effect of diets enriched in Delta6 desaturated fatty acids (18:3n-6 and 18:4n-3), on growth, fatty acid composition and highly unsaturated fatty acid synthesis in two populations of Arctic charr (<i>Salvelinus alpinus</i> L.). <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2006 , 144, 245-53	2.3	57
243	Biosynthesis of long-chain polyunsaturated fatty acids in the African catfish <i>Clarias gariepinus</i> : Molecular cloning and functional characterisation of fatty acyl desaturase (<i>fads2</i>) and elongase (<i>elovl2</i>) cDNAs. <i>Aquaculture</i> , 2016 , 462, 70-79	4.4	57
242	Cholesterol metabolism in the adrenal cortex. <i>The Journal of Steroid Biochemistry</i> , 1983 , 19, 1017-27		56
241	Biosynthesis of essential fatty acids in <i>Octopus vulgaris</i> (Cuvier, 1797): Molecular cloning, functional characterisation and tissue distribution of a fatty acyl elongase. <i>Aquaculture</i> , 2012 , 360-361, 45-53	4.4	55
240	Effects of dietary microalgae on growth, survival and fatty acid composition of sea urchin <i>Paracentrotus lividus</i> throughout larval development. <i>Aquaculture</i> , 2012 , 324-325, 250-258	4.4	54
239	Differential responses of the gut transcriptome to plant protein diets in farmed Atlantic salmon. <i>BMC Genomics</i> , 2016 , 17, 156	4.5	54
238	Risk assessment of the use of alternative animal and plant raw material resources in aquaculture feeds. <i>Reviews in Aquaculture</i> , 2020 , 12, 703-758	8.9	54
237	Functional characterization and differential nutritional regulation of putative <i>Elovl5</i> and <i>Elovl4</i> elongases in large yellow croaker (<i>Larimichthys crocea</i>). <i>Scientific Reports</i> , 2017 , 7, 2303	4.9	53

236	Influence of dietary docosahexaenoic acid in combination with other long-chain polyunsaturated fatty acids on expression of biosynthesis genes and phospholipid fatty acid compositions in tissues of post-smolt Atlantic salmon (<i>Salmo salar</i>). <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2014 , 172-173, 74-89	2.3	52
235	The use of palm oil in aquaculture feeds for salmonid species. <i>European Journal of Lipid Science and Technology</i> , 2007 , 109, 394-399	3	52
234	Influence of dietary oil content and conjugated linoleic acid (CLA) on lipid metabolism enzyme activities and gene expression in tissues of Atlantic salmon (<i>Salmo salar</i> L.). <i>Lipids</i> , 2006 , 41, 423-36	1.6	52
233	Nutritional quality of salmon products available from major retailers in the UK: content and composition of n-3 long-chain PUFA. <i>British Journal of Nutrition</i> , 2014 , 112, 964-75	3.6	51
232	Study of the n-3 highly unsaturated fatty acids requirement and antioxidant status of Dentex dentex larvae at the Artemia feeding stage. <i>Aquaculture</i> , 1999 , 179, 291-307	4.4	51
231	An oil containing EPA and DHA from transgenic <i>Camelina sativa</i> to replace marine fish oil in feeds for Atlantic salmon (<i>Salmo salar</i> L.): Effects on intestinal transcriptome, histology, tissue fatty acid profiles and plasma biochemistry. <i>PLoS ONE</i> , 2017 , 12, e0175415	3.7	50
230	Multiple peroxisome proliferator-activated receptor beta subtypes from Atlantic salmon (<i>Salmo salar</i>). <i>Journal of Molecular Endocrinology</i> , 2007 , 38, 391-400	4.5	49
229	Investigating long-chain polyunsaturated fatty acid biosynthesis in teleost fish: Functional characterization of fatty acyl desaturase (Fads2) and Elovl5 elongase in the catadromous species, Japanese eel <i>Anguilla japonica</i> . <i>Aquaculture</i> , 2014 , 434, 57-65	4.4	47
228	Nutritional Evaluation of an EPA-DHA Oil from Transgenic <i>Camelina sativa</i> in Feeds for Post-Smolt Atlantic Salmon (<i>Salmo salar</i> L.). <i>PLoS ONE</i> , 2016 , 11, e0159934	3.7	47
227	Incorporation and metabolism of (14)C-labelled polyunsaturated fatty acids in wild-caught juveniles of golden grey mullet, <i>Liza aurata</i> , in vivo. <i>Fish Physiology and Biochemistry</i> , 1993 , 12, 119-30	2.7	46
226	Evolutionary functional elaboration of the Elovl2/5 gene family in chordates. <i>Scientific Reports</i> , 2016 , 6, 20510	4.9	46
225	Effect of partial replacement of dietary fish meal and oil by pumpkin kernel cake and rapeseed oil on fatty acid composition and metabolism in Arctic charr (<i>Salvelinus alpinus</i>). <i>Aquaculture</i> , 2014 , 431, 85-91	4.4	45
224	Fatty acid profiles during gametogenesis in sea urchin (<i>Paracentrotus lividus</i>): effects of dietary inputs on gonad, egg and embryo profiles. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2013 , 164, 376-82	2.6	45
223	The effect of culture on morphology, lipid and fatty acid composition, and polyunsaturated fatty acid metabolism of rainbow trout (<i>Oncorhynchus mykiss</i>) skin cells. <i>Fish Physiology and Biochemistry</i> , 1997 , 16, 499-513	2.7	45
222	Atlantic salmon, <i>Salmo salar</i> , utilizes wax ester-rich oil from <i>Calanus finmarchicus</i> effectively. <i>Aquaculture</i> , 2004 , 240, 433-449	4.4	45
221	Lipid class and fatty acid composition of brain lipids from Atlantic herring (<i>Clupea harengus</i>) at different stages of development. <i>Marine Biology</i> , 1992 , 112, 553-558	2.5	45
220	Diet x genotype interactions in hepatic cholesterol and lipoprotein metabolism in Atlantic salmon (<i>Salmo salar</i>) in response to replacement of dietary fish oil with vegetable oil. <i>British Journal of Nutrition</i> , 2011 , 106, 1457-69	3.6	44
219	Incorporation and metabolism of (n-3) and (n-6) polyunsaturated fatty acids in phospholipid classes in cultured turbot (<i>Scophthalmus maximus</i>) cells. <i>Fish Physiology and Biochemistry</i> , 1990 , 8, 251-60	2.7	44

218	Nutrigenomic profiling of transcriptional processes affected in liver and distal intestine in response to a soybean meal-induced nutritional stress in Atlantic salmon (<i>Salmo salar</i>). <i>Comparative Biochemistry and Physiology Part D: Genomics and Proteomics</i> , 2015 , 15, 1-11	2	43
217	Characteristics of LC-PUFA biosynthesis in marine herbivorous teleost <i>Siganus canaliculatus</i> under different ambient salinities. <i>Aquaculture Nutrition</i> , 2015 , 21, 541-551	3-2	43
216	Comparison of effects of vegetable oils blended with southern hemisphere fish oil and decontaminated northern hemisphere fish oil on growth performance, composition and gene expression in Atlantic salmon (<i>Salmo salar</i> L.). <i>Aquaculture</i> , 2008 , 280, 170-178	4-4	43
215	Functional feeds reduce heart inflammation and pathology in Atlantic Salmon (<i>Salmo salar</i> L.) following experimental challenge with Atlantic salmon reovirus (ASRV). <i>PLoS ONE</i> , 2012 , 7, e40266	3-7	42
214	Effect of functional feeds on fatty acid and eicosanoid metabolism in liver and head kidney of Atlantic salmon (<i>Salmo salar</i> L.) with experimentally induced heart and skeletal muscle inflammation. <i>Fish and Shellfish Immunology</i> , 2013 , 34, 1533-45	4-3	42
213	Effect of dietary conjugated linoleic acid (CLA) on lipid composition, metabolism and gene expression in Atlantic salmon (<i>Salmo salar</i>) tissues. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2006 , 145, 258-67	2-6	40
212	Chapter 6 Glycerophospholipid metabolism. <i>Biochemistry and Molecular Biology of Fishes</i> , 1995 , 119-157		40
211	Elongation predominates over desaturation in the metabolism of 18:3n-3 and 20:5n-3 in turbot (<i>Scophthalmus maximus</i>) brain astroglial cells in primary culture. <i>Lipids</i> , 1993 , 28, 267-72	1-6	40
210	Conjugated linoleic acid affects lipid composition, metabolism, and gene expression in gilthead sea bream (<i>Sparus aurata</i> L.). <i>Journal of Nutrition</i> , 2007 , 137, 1363-9	4-1	39
209	An evolutionary perspective on Elovl5 fatty acid elongase: comparison of Northern pike and duplicated paralogs from Atlantic salmon. <i>BMC Evolutionary Biology</i> , 2013 , 13, 85	3	38
208	Heritability and mechanisms of n-3 long chain polyunsaturated fatty acid deposition in the flesh of Atlantic salmon. <i>Comparative Biochemistry and Physiology Part D: Genomics and Proteomics</i> , 2011 , 6, 62-9 ²		38
207	Incorporation of [1-14C]arachidonic and [1-14C]eicosapentaenoic acids into the phospholipids of peripheral blood neutrophils from the plaice, <i>Pleuronectes platessa</i> L. <i>Lipids and Lipid Metabolism</i> , 1986 , 876, 592-600		38
206	Update on GM canola crops as novel sources of omega-3 fish oils. <i>Plant Biotechnology Journal</i> , 2019 , 17, 703-705	11.6	38
205	Influence of dietary phospholipid on early development and performance of Atlantic salmon (<i>Salmo salar</i>). <i>Aquaculture</i> , 2015 , 448, 262-272	4-4	37
204	Interactions between dietary docosahexaenoic acid and other long-chain polyunsaturated fatty acids on performance and fatty acid retention in post-smolt Atlantic salmon (<i>Salmo salar</i>). <i>Fish Physiology and Biochemistry</i> , 2014 , 40, 1213-27	2-7	37
203	Dietary modulation of arachidonic acid metabolism in senegalese sole (<i>Solea Senegalensis</i>) broodstock reared in captivity. <i>Aquaculture</i> , 2013 , 372-375, 80-88	4-4	37
202	The compositional and metabolic responses of gilthead seabream (<i>Sparus aurata</i>) to a gradient of dietary fish oil and associated n-3 long-chain PUFA content. <i>British Journal of Nutrition</i> , 2017 , 118, 1010-1022	3-6	37
201	Lipid and fatty acid composition, and persistent organic pollutant levels in tissues of migrating Atlantic bluefin tuna (<i>Thunnus thynnus</i> , L.) broodstock. <i>Environmental Pollution</i> , 2012 , 171, 61-71	9-3	37

200	Effect of salinity on the biosynthesis of n-3 long-chain polyunsaturated fatty acids in silverside <i>Chirostoma estor</i> . <i>Fish Physiology and Biochemistry</i> , 2012 , 38, 1047-1057	2.7	37
199	Effects of essential fatty acid-deficient diets on growth, mortality, tissue histopathology and fatty acid compositions in juvenile turbot (<i>Scophthalmus maximus</i>). <i>Fish Physiology and Biochemistry</i> , 1999 , 20, 263-277	2.7	37
198	Lipid and fatty acid composition is altered in plaque tissue from multiple sclerosis brain compared with normal brain white matter. <i>Lipids</i> , 1991 , 26, 9-15	1.6	37
197	Modelling the predictable effects of dietary lipid sources on the fillet fatty acid composition of one-year-old gilthead sea bream (<i>Sparus aurata</i> L.). <i>Food Chemistry</i> , 2011 , 124, 538-544	8.5	36
196	Effects of substitution of dietary fish oil with a blend of vegetable oils on liver and peripheral blood leucocyte fatty acid composition, plasma prostaglandin E2 and immune parameters in three strains of Atlantic salmon (<i>Salmo salar</i>). <i>Aquaculture Nutrition</i> , 2009 , 15, 596-607	3.2	35
195	Tuna Nutrition and Feeds: Current Status and Future Perspectives. <i>Reviews in Fisheries Science</i> , 2009 , 17, 373-390		35
194	Effects of dietary borage oil [enriched in linolenic acid,18:3(n-6)] or marine fish oil [enriched in eicosapentaenoic acid,20:5(n-3)] on growth, mortalities, liver histopathology and lipid composition of juvenile turbot (<i>Scophthalmus maximus</i>). <i>Fish Physiology and Biochemistry</i> , 1995 , 14, 373-83	2.7	35
193	Lipids and Fatty Acids 2015 , 47-94		34
192	Docosahexaenoic acid biosynthesis via fatty acyl elongase and Δ -desaturase and its modulation by dietary lipid level and fatty acid composition in a marine vertebrate. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2015 , 1851, 588-97	5	34
191	Daily rhythms in expression of genes of hepatic lipid metabolism in Atlantic salmon (<i>Salmo salar</i> L.). <i>PLoS ONE</i> , 2014 , 9, e106739	3.7	34
190	Effect of dietary substitution of fish oil by Echium oil on growth, plasma parameters and body lipid composition in gilthead seabream (<i>Sparus aurata</i> L.). <i>Aquaculture Nutrition</i> , 2009 , 15, 500-512	3.2	34
189	Effects of decontaminated fish oil or a fish and vegetable oil blend on persistent organic pollutant and fatty acid compositions in diet and flesh of Atlantic salmon (<i>Salmo salar</i>). <i>British Journal of Nutrition</i> , 2010 , 103, 1442-51	3.6	34
188	Influence of dietary conjugated linoleic acid (CLA) on lipid and fatty acid composition in liver and flesh of Atlantic salmon (<i>Salmo salar</i>). <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2005 , 141, 168-78	2.3	34
187	Molecular cloning and functional characterization of a putative Elovl4 gene and its expression in response to dietary fatty acid profiles in orange-spotted grouper <i>Epinephelus coioides</i> . <i>Aquaculture Research</i> , 2017 , 48, 537-552	1.9	33
186	Long-chain polyunsaturated fatty acid biosynthesis in the euryhaline herbivorous teleost <i>Scatophagus argus</i> : Functional characterization, tissue expression and nutritional regulation of two fatty acyl elongases. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2015 , 198, 37-45	2.3	33
185	In vivo metabolism of unsaturated fatty acids in <i>Octopus vulgaris</i> hatchlings determined by incubation with ¹⁴ C-labelled fatty acids added directly to seawater as protein complexes. <i>Aquaculture</i> , 2014 , 431, 28-33	4.4	33
184	The in vivo incorporation and metabolism of [1- ¹⁴ C] linolenate (18:3n-3) in liver, brain and eyes of juveniles of rainbow trout <i>Oncorhynchus mykiss</i> L and gilthead sea bream <i>Sparus aurata</i> L.. <i>Fish Physiology and Biochemistry</i> , 1998 , 18, 149-165	2.7	33
183	Oil from transgenic <i>Camelina sativa</i> containing over 25 % n-3 long-chain PUFA as the major lipid source in feed for Atlantic salmon (<i>Salmo salar</i>). <i>British Journal of Nutrition</i> , 2018 , 119, 1378-1392	3.6	33

182	Metabolism of 18:4n-3 (stearidonic acid) and 20:4n-3 in salmonid cells in culture and inhibition of the production of prostaglandin F ₂ (PGF ₂) from 20:4n-6 (arachidonic acid). <i>Fish Physiology and Biochemistry</i> , 2002 , 27, 81-96	2.7	32
181	Diets rich in eicosapentaenoic acid and gamma-linolenic acid affect phospholipid fatty acid composition and production of prostaglandins E1, E2 and E3 in turbot (<i>Scophthalmus maximus</i>), a species deficient in delta 5 fatty acid desaturase. <i>Prostaglandins Leukotrienes and Essential Fatty Acids</i> , 1995 , 53, 279-86	2.8	32
180	Atlantic salmon (<i>Salmo salar</i>) postsmolts adapt lipid digestion according to elevated dietary wax esters from <i>Calanus finmarchicus</i> . <i>Aquaculture Nutrition</i> , 2009 , 15, 94-103	3.2	31
179	The effects of weaning on to a dry pellet diet on brain lipid and fatty acid compositions in post-larval gilthead sea bream (<i>Sparus aurata</i> L.). <i>Comparative Biochemistry and Physiology A, Comparative Physiology</i> , 1993 , 104, 605-611		31
178	Monitoring the influence of marine aquaculture on wild fish communities: benefits and limitations of fatty acid profiles. <i>Aquaculture Environment Interactions</i> , 2011 , 2, 39-47	2.9	31
177	Effects of functional feeds on the lipid composition, transcriptomic responses and pathology in heart of Atlantic salmon (<i>Salmo salar</i> L.) before and after experimental challenge with Piscine Myocarditis Virus (PMCV). <i>BMC Genomics</i> , 2014 , 15, 462	4.5	30
176	Early nutritional intervention can improve utilisation of vegetable-based diets in diploid and triploid Atlantic salmon (<i>Salmo salar</i> L.). <i>British Journal of Nutrition</i> , 2017 , 118, 17-29	3.6	30
175	Molecular and functional characterisation of two elovl4 elongases involved in the biosynthesis of very long-chain (>C) polyunsaturated fatty acids in black seabream <i>Acanthopagrus schlegelii</i> . <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2017 , 212, 41-50	2.3	30
174	Influence of dietary conjugated linoleic acid (CLA) and tetradecylthioacetic acid (TTA) on growth, lipid composition and key enzymes of fatty acid oxidation in liver and muscle of Atlantic cod (<i>Gadus morhua</i> L.). <i>Aquaculture</i> , 2007 , 264, 372-382	4.4	30
173	miR-17 is involved in the regulation of LC-PUFA biosynthesis in vertebrates: effects on liver expression of a fatty acyl desaturase in the marine teleost <i>Siganus canaliculatus</i> . <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2014 , 1841, 934-43	5	29
172	Effect of varying dietary levels of LC-PUFA and vegetable oil sources on performance and fatty acids of Senegalese sole post larvae: puzzling results suggest complete biosynthesis pathway from C18 PUFA to DHA. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2014 , 167, 51-8	2.3	29
171	Hepatic transcriptome analysis of inter-family variability in flesh n-3 long-chain polyunsaturated fatty acid content in Atlantic salmon. <i>BMC Genomics</i> , 2012 , 13, 410	4.5	29
170	Nutritional and environmental regulation of the synthesis of highly unsaturated fatty acids and of fatty-acid oxidation in Atlantic salmon (<i>Salmo salar</i> L.) enterocytes and hepatocytes. <i>Fish Physiology and Biochemistry</i> , 2006 , 32, 317-328	2.7	29
169	Polyunsaturated fatty acid metabolism in cultured fish cells: Incorporation and metabolism of (n-3) and (n-6) series acids by Atlantic salmon (<i>Salmo salar</i>) cells. <i>Fish Physiology and Biochemistry</i> , 1990 , 8, 311-9	2.7	29
168	Dietary DHA/EPA ratio affected tissue fatty acid profiles, antioxidant capacity, hematological characteristics and expression of lipid-related genes but not growth in juvenile black seabream (<i>Acanthopagrus schlegelii</i>). <i>PLoS ONE</i> , 2017 , 12, e0176216	3.7	29
167	Hepatocyte Nuclear Factor 4 (HNF4) Is a Transcription Factor of Vertebrate Fatty Acyl Desaturase Gene as Identified in Marine Teleost <i>Siganus canaliculatus</i> . <i>PLoS ONE</i> , 2016 , 11, e0160361	3.7	29
166	Retention of fatty acyl desaturase 1 (fads1) in Elopomorpha and Cyclostomata provides novel insights into the evolution of long-chain polyunsaturated fatty acid biosynthesis in vertebrates. <i>BMC Evolutionary Biology</i> , 2018 , 18, 157	3	29
165	Cloning and characterization of β/β fatty acyl desaturase (Fad) gene promoter in the marine teleost <i>Siganus canaliculatus</i> . <i>Gene</i> , 2018 , 647, 174-180	3.8	28

164	A comparative analysis of the response of the hepatic transcriptome to dietary docosahexaenoic acid in Atlantic salmon (<i>Salmo salar</i>) post-smolts. <i>BMC Genomics</i> , 2015 , 16, 684	4.5	28
163	Incorporation and metabolism of (n-3) and (n-6) polyunsaturated fatty acids in phospholipid classes in cultured rainbow trout (<i>Salmo gairdneri</i>) cells. <i>Fish Physiology and Biochemistry</i> , 1990 , 8, 239-49	2.7	28
162	Cloning, functional characterization and nutritional regulation of Δ fatty acyl desaturase in the herbivorous euryhaline teleost <i>Scatophagus argus</i> . <i>PLoS ONE</i> , 2014 , 9, e90200	3.7	27
161	Effect of dietary digestible energy content on expression of genes of lipid metabolism and LC-PUFA biosynthesis in liver of Atlantic salmon (<i>Salmo salar</i> L.). <i>Aquaculture</i> , 2013 , 384-387, 94-103	4.4	27
160	The use of silages prepared from fish neural tissues as enrichers for rotifers (<i>Brachionus plicatilis</i>) and <i>Artemia</i> in the nutrition of larval marine fish. <i>Aquaculture</i> , 1997 , 148, 213-231	4.4	27
159	Cloning and Characterization of <i>Lxr</i> and <i>Srebp1</i> , and Their Potential Roles in Regulation of LC-PUFA Biosynthesis in Rabbitfish <i>Siganus canaliculatus</i> . <i>Lipids</i> , 2016 , 51, 1051-63	1.6	26
158	Changes in mitochondrial membrane composition and oxidative status during rapid growth, maturation and aging in zebrafish, <i>Danio rerio</i> . <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2014 , 1841, 1003-11	5	26
157	Biosynthesis of Polyunsaturated Fatty Acids in <i>Octopus vulgaris</i> : Molecular Cloning and Functional Characterisation of a Stearoyl-CoA Desaturase and an Elongation of Very Long-Chain Fatty Acid 4 Protein. <i>Marine Drugs</i> , 2017 , 15,	6	26
156	Influence of conjugated linoleic acid (CLA) or tetradecylthioacetic acid (TTA) on growth, lipid composition, fatty acid metabolism and lipid gene expression of rainbow trout (<i>Oncorhynchus mykiss</i> L.). <i>Aquaculture</i> , 2007 , 272, 489-501	4.4	26
155	Molecular and functional characterization of a <i>fads2</i> orthologue in the Amazonian teleost, <i>Arapaima gigas</i> . <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2017 , 203, 84-91	2.3	25
154	Influence of Development and Dietary Phospholipid Content and Composition on Intestinal Transcriptome of Atlantic Salmon (<i>Salmo salar</i>). <i>PLoS ONE</i> , 2015 , 10, e0140964	3.7	25
153	Investigating the essential fatty acids in the common cuttlefish <i>Sepia officinalis</i> (Mollusca, Cephalopoda): Molecular cloning and functional characterisation of fatty acyl desaturase and elongase. <i>Aquaculture</i> , 2016 , 450, 38-47	4.4	24
152	Elongation of very Long-Chain (>C) Fatty Acids in <i>Clarias gariepinus</i> : Cloning, Functional Characterization and Tissue Expression of <i>elovl4</i> Elongases. <i>Lipids</i> , 2017 , 52, 837-848	1.6	24
151	Fatty acid utilisation and metabolism in caecal enterocytes of rainbow trout (<i>Oncorhynchus mykiss</i>) fed dietary fish or copepod oil. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2005 , 1737, 119-29	5	24
150	Induction of Δ -fatty acyl desaturation in rainbow trout (<i>Oncorhynchus mykiss</i>) liver by dietary manipulation. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 1996 , 113, 205-212	2.3	24
149	Incorporation of [³ H]arachidonic and [¹⁴ C]eicosapentaenoic acids into glycerophospholipids and their metabolism via lipoxygenases in isolated brain cells from rainbow trout <i>Oncorhynchus mykiss</i> . <i>Journal of Neurochemistry</i> , 1991 , 57, 2078-85	6	24
148	The effect of calcium ionophore A23187 on the metabolism of arachidonic and eicosapentaenoic acids in neutrophils from a marine teleost fish rich in (n-3) polyunsaturated fatty acids. <i>Comparative Biochemistry and Physiology Part B: Comparative Biochemistry</i> , 1987 , 87, 733-9		24
147	Mass Production of and Its Amino Acid and Fatty Acid Profiles. <i>Frontiers in Chemistry</i> , 2018 , 6, 479	5	24

146	Nutritional regulation of long-chain PUFA biosynthetic genes in rainbow trout (<i>Oncorhynchus mykiss</i>). <i>British Journal of Nutrition</i> , 2016 , 115, 1721-9	3.6	23
145	Isolation and Functional Characterisation of a fads2 in Rainbow Trout (<i>Oncorhynchus mykiss</i>) with Δ^5 Desaturase Activity. <i>PLoS ONE</i> , 2016 , 11, e0150770	3.7	23
144	Atlantic salmon (<i>Salmo salar</i>) parr as a model to predict the optimum inclusion of air classified faba bean protein concentrate in feeds for seawater salmon. <i>Aquaculture</i> , 2015 , 444, 70-78	4.4	22
143	Influence of broodstock diet on somatic growth, fecundity, gonad carotenoids and larval survival of sea urchin. <i>Aquaculture Research</i> , 2015 , 46, 969-976	1.9	21
142	Studies on triacylglycerol, wax ester and sterol ester hydrolases in intestinal caeca of rainbow trout (<i>Salmo gairdneri</i>) fed diets rich in triacylglycerols and wax esters. <i>Comparative Biochemistry and Physiology Part B: Comparative Biochemistry</i> , 1984 , 77, 561-571		21
141	Modification of nutritional values and flavor qualities of muscle of swimming crab (<i>Portunus trituberculatus</i>): Application of a dietary lipid nutrition strategy. <i>Food Chemistry</i> , 2020 , 308, 125607	8.5	21
140	Early nutritional programming affects liver transcriptome in diploid and triploid Atlantic salmon, <i>Salmo salar</i> . <i>BMC Genomics</i> , 2017 , 18, 886	4.5	20
139	Functional diversification of teleost Fads2 fatty acyl desaturases occurs independently of the trophic level. <i>Scientific Reports</i> , 2019 , 9, 11199	4.9	20
138	Influence of the dietary protein:lipid ratio and fish oil substitution on fatty acid composition and metabolism of Atlantic salmon (<i>Salmo salar</i>) reared at high water temperatures. <i>British Journal of Nutrition</i> , 2011 , 105, 1012-25	3.6	20
137	Degradation of specific polyunsaturated fatty acids in red blood cells stored at -20 degrees C proceeds faster in patients with schizophrenia when compared with healthy controls. <i>Prostaglandins Leukotrienes and Essential Fatty Acids</i> , 2003 , 69, 291-7	2.8	20
136	Primary culture of astrocytic glial cells from rainbow trout, <i>Salmo gairdneri</i> L., brain. <i>Journal of Neuroscience Methods</i> , 1990 , 33, 93-100	3	20
135	In vitro regulation of bovine adrenal cortical acyl-CoA: cholesterol acyltransferase and comparison with the rat liver enzyme. <i>Lipids and Lipid Metabolism</i> , 1983 , 753, 422-9		20
134	The effect of micronutrient supplementation on growth and hepatic metabolism in diploid and triploid Atlantic salmon (<i>Salmo salar</i>) parr fed a low marine ingredient diet. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2019 , 227, 106-121	2.3	20
133	Molecular mechanism of dietary phospholipid requirement of Atlantic salmon, <i>Salmo salar</i> , fry. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2015 , 1851, 1428-41	5	19
132	Characteristics of the fads2 gene promoter in marine teleost <i>Epinephelus coioides</i> and role of Sp1-binding site in determining promoter activity. <i>Scientific Reports</i> , 2018 , 8, 5305	4.9	19
131	Lipid and fatty acid composition of parasitic caligid copepods belonging to the genus <i>Lepeophtheirus</i> . <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2010 , 156, 107-14	2.3	19
130	The influence of temperature on the apparent lipid digestibility in Atlantic salmon (<i>Salmo salar</i>) fed <i>Calanus finmarchicus</i> oil at two dietary levels. <i>Aquaculture</i> , 2010 , 309, 143-151	4.4	19
129	Effects of salinity on the fatty acid compositions of total lipid and individual glycerophospholipid classes of Atlantic salmon (<i>Salmo salar</i>) and turbot (<i>Scophthalmus maximus</i>) cells in culture. <i>Fish Physiology and Biochemistry</i> , 1995 , 14, 125-37	2.7	19

128	Temperature Increase Negatively Affects the Fatty Acid Bioconversion Capacity of Rainbow Trout (<i>Oncorhynchus mykiss</i>) Fed a Linseed Oil-Based Diet. <i>PLoS ONE</i> , 2016 , 11, e0164478	3.7	19
127	Polyunsaturated Fatty Acid Biosynthesis and Metabolism in Fish 2018 , 31-60		19
126	Modulation of selenium tissue distribution and selenoprotein expression in Atlantic salmon (<i>Salmo salar</i> L.) fed diets with graded levels of plant ingredients. <i>British Journal of Nutrition</i> , 2016 , 115, 1325-38	3.6	19
125	Dietary Linseed Oil Reduces Growth While Differentially Impacting LC-PUFA Synthesis and Accretion into Tissues in Eurasian Perch (<i>Perca fluviatilis</i>). <i>Lipids</i> , 2015 , 50, 1219-32	1.6	18
124	n-3 and n-6 fatty acid bioconversion abilities in Eurasian perch (<i>Perca fluviatilis</i>) at two developmental stages. <i>Aquaculture Nutrition</i> , 2011 , 17, e216-e225	3.2	18
123	A critical assessment of different transmethylation procedures commonly employed in the fatty acid analysis of aquatic organisms. <i>Limnology and Oceanography: Methods</i> , 2008 , 6, 523-531	2.6	18
122	Effects of dietary lipid level on growth, fatty acid profiles, antioxidant capacity and expression of genes involved in lipid metabolism in juvenile swimming crab,. <i>British Journal of Nutrition</i> , 2020 , 123, 149-160	3.6	18
121	Inter-individual variation in total fatty acid compositions of flesh of Atlantic salmon smolts-fed diets containing fish oil or vegetable oil. <i>Aquaculture Research</i> , 2007 , 38, 1045-1055	1.9	17
120	Incorporation and metabolism of fatty acids by desaturation and elongation in the nematode, <i>Panagrellus redivivus</i> . <i>Nematology</i> , 2004 , 6, 783-795	0.9	17
119	Effects of salinity on the growth and lipid composition of Atlantic salmon (<i>Salmo salar</i>) and turbot (<i>Scophthalmus maximus</i>) cells in culture. <i>Fish Physiology and Biochemistry</i> , 1994 , 13, 451-61	2.7	17
118	A Transgenic Camelina sativa Seed Oil Effectively Replaces Fish Oil as a Dietary Source of Eicosapentaenoic Acid in Mice. <i>Journal of Nutrition</i> , 2016 , 146, 227-35	4.1	17
117	Dietary choline supplementation attenuated high-fat diet-induced inflammation through regulation of lipid metabolism and suppression of NFB activation in juvenile black seabream (). <i>Journal of Nutritional Science</i> , 2019 , 8, e38	2.7	17
116	Influence of plasma lipid changes in response to 17 β estradiol stimulation on plasma growth hormone, somatostatin, and thyroid hormone levels in immature rainbow trout. <i>Journal of Fish Biology</i> , 2001 , 59, 605-615	1.9	17
115	miR-24 is involved in vertebrate LC-PUFA biosynthesis as demonstrated in marine teleost <i>Siganus canaliculatus</i> . <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2019 , 1864, 619-628	5	16
114	Roles of selenoprotein antioxidant protection in zebrafish, <i>Danio rerio</i> , subjected to dietary oxidative stress. <i>Fish Physiology and Biochemistry</i> , 2015 , 41, 705-20	2.7	16
113	Lipid metabolism-related gene expression pattern of Atlantic bluefin tuna (<i>Thunnus thynnus</i> L.) larvae fed on live prey. <i>Fish Physiology and Biochemistry</i> , 2017 , 43, 493-516	2.7	16
112	Higher dietary micronutrients are required to maintain optimal performance of Atlantic salmon (<i>Salmo salar</i>) fed a high plant material diet during the full production cycle. <i>Aquaculture</i> , 2020 , 528, 73555	4.4	15
111	Toxicological mechanism of excessive copper supplementation: Effects on coloration, copper bioaccumulation and oxidation resistance in mud crab <i>Scylla paramamosain</i> . <i>Journal of Hazardous Materials</i> , 2020 , 395, 122600	12.8	15

110	Essential fatty acid metabolism and requirements of the cleaner fish, ballan wrasse <i>Labrus bergylta</i> : Defining pathways of long-chain polyunsaturated fatty acid biosynthesis. <i>Aquaculture</i> , 2018 , 488, 199-206	4.4	15
109	Hnf4 β s involved in the regulation of vertebrate LC-PUFA biosynthesis: insights into the regulatory role of Hnf4 β n expression of liver fatty acyl desaturases in the marine teleost <i>Siganus canaliculatus</i> . <i>Fish Physiology and Biochemistry</i> , 2018 , 44, 805-815	2.7	15
108	The miR-33 gene is identified in a marine teleost: a potential role in regulation of LC-PUFA biosynthesis in <i>Siganus canaliculatus</i> . <i>Scientific Reports</i> , 2016 , 6, 32909	4.9	15
107	Age-related changes in mitochondrial membrane composition of <i>Nothobranchius rachovii</i> . <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2014 , 69, 142-51	6.4	15
106	Age-related changes in mitochondrial membrane composition of rainbow trout (<i>Oncorhynchus mykiss</i>) heart and brain. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2012 , 163, 129-37	2.3	15
105	Effects of dietary gamma-linolenic acid-rich borage oil combined with marine fish oils on tissue phospholipid fatty acid composition and production of prostaglandins E and F of the 1-, 2- and 3-series in a marine fish deficient in delta5 fatty acyl desaturase. <i>Prostaglandins Leukotrienes and Essential Fatty Acids</i> , 2007 , 77, 107-14	2.8	15
104	Cultured fish cells metabolize octadecapentaenoic acid (all-cis delta3,6,9,12,15-18:5) to octadecatetraenoic acid (all-cis delta6,9,12,15-18:4) via its 2-trans intermediate (trans delta2, all-cis delta6,9,12,15-18:5). <i>Lipids</i> , 2001 , 36, 145-52	1.6	15
103	Polyunsaturated fatty acid metabolism in a cell culture model of essential fatty acid deficiency in a freshwater fish, carp (<i>Cyprinus carpio</i>). <i>Fish Physiology and Biochemistry</i> , 1999 , 21, 257-267	2.7	15
102	Production of eicosanoids derived from 20:4n-6 and 20:5n-3 in primary cultures of turbot (<i>Scophthalmus maximus</i>) brain astrocytes in response to platelet activating factor, substance P and interleukin-1 beta. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 1996 , 115, 215-22	2.3	15
101	Molecular and functional characterisation of a putative elovl4 gene and its expression in response to dietary fatty acid profile in Atlantic bluefin tuna (<i>Thunnus thynnus</i>). <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2020 , 240, 110372	2.3	15
100	MicroRNAs Involved in the Regulation of LC-PUFA Biosynthesis in Teleosts: miR-33 Enhances LC-PUFA Biosynthesis in <i>Siganus canaliculatus</i> by Targeting insig1 which in Turn Upregulates srebp1. <i>Marine Biotechnology</i> , 2019 , 21, 475-487	3.4	14
99	Assessment of a land-locked Atlantic salmon (<i>Salmo salar</i> L.) population as a potential genetic resource with a focus on long-chain polyunsaturated fatty acid biosynthesis. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2016 , 1861, 227-38	5	14
98	Effects of essential fatty acid deficiency and supplementation with docosahexaenoic acid (DHA; 22:6n-3) on cellular fatty acid compositions and fatty acyl desaturation in a cell culture model. <i>Prostaglandins Leukotrienes and Essential Fatty Acids</i> , 2001 , 64, 11-22	2.8	14
97	Regulation of long-chain polyunsaturated fatty acid biosynthesis in teleost fish. <i>Progress in Lipid Research</i> , 2021 , 82, 101095	14.3	14
96	Replacement of dietary soy- with air classified faba bean protein concentrate alters the hepatic transcriptome in Atlantic salmon (<i>Salmo salar</i>) parr. <i>Comparative Biochemistry and Physiology Part D: Genomics and Proteomics</i> , 2015 , 16, 48-58	2	13
95	Composition and metabolism of phospholipids in <i>Octopus vulgaris</i> and <i>Sepia officinalis</i> hatchlings. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2016 , 200, 62-8	2.3	13
94	Comparative study on fatty acid metabolism of early stages of two crustacean species: <i>Artemia</i> sp. metanauplii and <i>Grapsus adscensionis</i> zoeae, as live prey for marine animals. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2017 , 204, 53-60	2.3	13
93	Changes in tissue and mitochondrial membrane composition during rapid growth, maturation and aging in rainbow trout, <i>Oncorhynchus mykiss</i> . <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2012 , 161, 404-12	2.3	13

92	Development of a fish cell culture model to investigate the impact of fish oil replacement on lipid peroxidation. <i>Lipids</i> , 2011 , 46, 753-64	1.6	13
91	Essential fatty acid deficiency in freshwater fish: the effects of linoleic, linolenic, linolenic and stearidonic acids on the metabolism of [1-14C]18:3n-3 in a carp cell culture model 2000 , 22, 67-75		13
90	Effects of exogenous monounsaturated fatty acids on fatty acid metabolism in cultured skin fibroblasts from adrenoleukodystrophy patients. <i>Journal of the Neurological Sciences</i> , 1992 , 109, 207-14	3.2	13
89	Dietary DHA/EPA ratio affects growth, tissue fatty acid profiles and expression of genes involved in lipid metabolism in mud crab <i>Scylla paramamosain</i> supplied with appropriate n-3 LC-PUFA at two lipid levels. <i>Aquaculture</i> , 2021 , 532, 736028	4.4	13
88	In vivo metabolism of unsaturated fatty acids in <i>Sepia officinalis</i> hatchlings. <i>Aquaculture</i> , 2016 , 450, 67-74	4.4	12
87	Biosynthesis of long-chain polyunsaturated fatty acids in the razor clam <i>Sinonovacula constricta</i> : Characterization of four fatty acyl elongases and a novel desaturase capacity. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2019 , 1864, 1083-1090	5	12
86	Effects of different blends of protein sources as alternatives to dietary fishmeal on growth performance and body lipid composition of Atlantic salmon (<i>Salmo salar</i> L.). <i>Aquaculture</i> , 2011 , 316, 44-52	4.4	12
85	Growth, mortality, tissue histopathology and fatty acid compositions, eicosanoid production and response to stress, in juvenile turbot fed diets rich in gamma-linolenic acid in combination with eicosapentaenoic acid or docosahexaenoic acid. <i>Prostaglandins Leukotrienes and Essential Fatty Acids</i> , 1998 , 58, 353-64	2.8	12
84	Nutritional evaluation of seafood, with respect to long-chain omega-3 fatty acids, available to UK consumers. <i>Proceedings of the Nutrition Society</i> , 2017 , 76,	2.9	11
83	Genome wide identification and functional characterization of two LC-PUFA biosynthesis elongase (elovl8) genes in rabbitfish (<i>Siganus canaliculatus</i>). <i>Aquaculture</i> , 2020 , 522, 735127	4.4	11
82	Dietary fenofibrate attenuated high-fat-diet-induced lipid accumulation and inflammation response partly through regulation of ppar α and sirt1 in juvenile black seabream (<i>Acanthopagrus schlegelii</i>). <i>Developmental and Comparative Immunology</i> , 2020 , 109, 103691	3.2	11
81	Enhanced micronutrient supplementation in low marine diets reduced vertebral malformation in diploid and triploid Atlantic salmon (<i>Salmo salar</i>) parr, and increased vertebral expression of bone biomarker genes in diploids. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2016 , 143, 227-237	2.3	11
80	Effects of dietary fish oil substitution by Echium oil on enterocyte and hepatocyte lipid metabolism of gilthead seabream (<i>Sparus aurata</i> L.). <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2010 , 155, 371-9	2.3	11
79	Development of an in vitro model of essential fatty acid deficiency in fish cells. <i>Prostaglandins Leukotrienes and Essential Fatty Acids</i> , 1995 , 53, 365-75	2.8	11
78	The catadromous teleost <i>Anguilla japonica</i> has a complete enzymatic repertoire for the biosynthesis of docosahexaenoic acid from linolenic acid: Cloning and functional characterization of an Elov12 elongase. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2020 , 240, 110373	2.3	11
77	Long-chain polyunsaturated fatty acid metabolism in carnivorous marine teleosts: Insight into the profile of endogenous biosynthesis in golden pompano <i>Trachinotus ovatus</i> . <i>Aquaculture Research</i> , 2020 , 51, 623-635	1.9	11
76	Influence of dietary inclusion of a wet processed faba bean protein isolate on post-smolt Atlantic salmon (<i>Salmo salar</i>). <i>Aquaculture</i> , 2016 , 465, 124-133	4.4	11
75	PparIs Involved in the Transcriptional Regulation of Liver LC-PUFA Biosynthesis by Targeting the $\delta 5$ Fatty Acyl Desaturase Gene in the Marine Teleost <i>Siganus canaliculatus</i> . <i>Marine Biotechnology</i> , 2019 , 21, 19-29	3.4	11

74	Effects of different dietary oil sources on growth performance, antioxidant capacity and lipid deposition of juvenile golden pompano <i>Trachinotus ovatus</i> . <i>Aquaculture</i> , 2021 , 530, 735923	4.4	11
73	Effects of dietary zinc level on growth performance, lipolysis and expression of genes involved in the calcium/calmodulin-dependent protein kinase kinase- γ /AMP-activated protein kinase pathway in juvenile Pacific white shrimp. <i>British Journal of Nutrition</i> , 2020 , 124, 773-784	3.6	10
72	Digestibility of <i>Calanus finmarchicus</i> wax esters in Atlantic salmon (<i>Salmo salar</i>) freshwater presmolts and seawater postsmolts maintained at constant water temperature. <i>Aquaculture Nutrition</i> , 2009 , 15, 459-469	3.2	10
71	Variation in the nutritional composition of farmed Atlantic salmon (<i>Salmo salar</i> L.) fillets with emphasis on EPA and DHA contents. <i>Journal of Food Composition and Analysis</i> , 2020 , 94, 103618	4.1	10
70	Oil from transgenic as a source of EPA and DHA in feed for European sea bass (L.). <i>Aquaculture</i> , 2021 , 530, 735759	4.4	10
69	Molecular aspects of lipid metabolism, digestibility and antioxidant status of Atlantic bluefin tuna (<i>T. thynnus</i> L.) larvae during first feeding. <i>Aquaculture</i> , 2017 , 479, 357-369	4.4	9
68	Endogenous production of ω -3 long-chain PUFA from first feeding and the influence of dietary linoleic acid and the ω -linolenic:linoleic ratio in Atlantic salmon (<i>S.</i>). <i>British Journal of Nutrition</i> , 2019 , 122, 1091-1102	3.6	9
67	Utilization and metabolism of palmityl and oleoyl fatty acids and alcohols in caecal enterocytes of Atlantic salmon (<i>Salmo salar</i> L.). <i>Aquaculture Nutrition</i> , 2008 , 14, 270-280	3.2	9
66	Can mesopelagic mixed layers be used as feed sources for salmon aquaculture?. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2020 , 180, 104722	2.3	9
65	Micronutrient supplementation affects transcriptional and epigenetic regulation of lipid metabolism in a dose-dependent manner. <i>Epigenetics</i> , 2021 , 16, 1217-1234	5.7	9
64	Metformin attenuates lipid accumulation in hepatocytes of blunt snout bream (<i>Megalobrama amblycephala</i>) via activation of AMP-activated protein kinase. <i>Aquaculture</i> , 2019 , 499, 90-100	4.4	9
63	Transcriptomic and physiological analyses of hepatopancreas reveal the key metabolic changes in response to dietary copper level in Pacific white shrimp <i>Litopenaeus vannamei</i> . <i>Aquaculture</i> , 2021 , 532, 736060	4.4	9
62	Untargeted lipidomics reveals metabolic responses to different dietary ω -3 PUFA in juvenile swimming crab (<i>Portunus trituberculatus</i>). <i>Food Chemistry</i> , 2021 , 354, 129570	8.5	9
61	Air-classified faba bean protein concentrate is efficiently utilized as a dietary protein source by post-smolt Atlantic salmon (<i>Salmo salar</i>). <i>Aquaculture</i> , 2016 , 452, 169-177	4.4	8
60	Sp1 is Involved in Vertebrate LC-PUFA Biosynthesis by Upregulating the Expression of Liver Desaturase and Elongase Genes. <i>International Journal of Molecular Sciences</i> , 2019 , 20,	6.3	8
59	The effect of temperature and dietary fat level on tissue lipid composition in Atlantic salmon (<i>Salmo salar</i>) fed wax ester-rich oil from <i>Calanus finmarchicus</i> . <i>Aquaculture Nutrition</i> , 2011 , 17, e781-e788	3.2	8
58	Occurrence of 22:3 ω -9 and 22:4 ω -9 in the lipids of the topminnow (<i>Poeciliopsis lucida</i>) hepatic tumor cell line, PLHC-1. <i>Lipids</i> , 1995 , 30, 555-65	1.6	8
57	Effect of polyunsaturated fatty acids on the growth of fish cells in culture. <i>Comparative Biochemistry and Physiology A, Comparative Physiology</i> , 1991 , 100, 461-466		8

56	Regulatory divergence of homeologous Atlantic salmon elovl5 genes following the salmonid-specific whole-genome duplication. <i>Gene</i> , 2016 , 591, 34-42	3.8	8
55	No transfer of the non-regulated mycotoxins, beauvericin and enniatins, from feeds to farmed fish reared on plant-based diets. <i>Food Chemistry</i> , 2020 , 323, 126773	8.5	8
54	Total Replacement of Dietary Fish Oil with a Blend of Vegetable Oils in the Marine Herbivorous Teleost, <i>Siganus canaliculatus</i> . <i>Journal of the World Aquaculture Society</i> , 2018 , 49, 692-702	2.5	8
53	Evaluation of different feeding protocols for larvae of Atlantic bluefin tuna (<i>Thunnus thynnus</i> L.). <i>Aquaculture</i> , 2019 , 505, 523-538	4.4	7
52	Docosahexaenoic acid in Arctic charr (<i>Salvelinus alpinus</i>): the importance of dietary supply and physiological response during the entire growth period. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 2015 , 181, 7-14	2.3	7
51	Growth and digestive enzyme activities of rohu <i>labeo rohita</i> fed diets containing macrophytes and almond oil-cake. <i>Animal Feed Science and Technology</i> , 2020 , 263, 114456	3	7
50	Encapsulated Fish Oil Products Available in the UK Meet Regulatory Guidelines With Respect to EPA + DHA Contents and Oxidative Status. <i>European Journal of Lipid Science and Technology</i> , 2018 , 120, 1800105	3	7
49	Agriculture can help aquaculture become greener. <i>Nature Food</i> , 2020 , 1, 680-683	14.4	7
48	Production potential of greater duckweed <i>Spirodela polyrhiza</i> (L. Schleiden) and its biochemical composition evaluation. <i>Aquaculture</i> , 2019 , 513, 734419	4.4	6
47	Effects of dietary fatty acids on mitochondrial phospholipid compositions, oxidative status and mitochondrial gene expression of zebrafish at different ages. <i>Fish Physiology and Biochemistry</i> , 2015 , 41, 1187-204	2.7	6
46	Influence of dietary zinc on growth, zinc bioaccumulation and expression of genes involved in antioxidant and innate immune in juvenile mud crabs (<i>Decapoda</i>). <i>British Journal of Nutrition</i> , 2020 , 124, 681-692	3.6	6
45	The lipids 2022 , 303-467		6
44	miR-26a mediates LC-PUFA biosynthesis by targeting the <i>Lxr</i> and <i>Srebp1</i> pathway in the marine teleost. <i>Journal of Biological Chemistry</i> , 2020 , 295, 13875-13886	5.4	6
43	Dynamics of fatty acid metabolism in a cell line from southern bluefin tuna (<i>Thunnus maccoyii</i>). <i>Aquaculture</i> , 2015 , 449, 58-68	4.4	5
42	Central and peripheral clocks in Atlantic bluefin tuna (<i>Thunnus thynnus</i> , L.): Daily rhythmicity of hepatic lipid metabolism and digestive genes. <i>Aquaculture</i> , 2020 , 523, 735220	4.4	5
41	Incorporation and metabolism of (n-3) and (n-6) polyunsaturated fatty acids in phospholipid classes in cultured Atlantic salmon (<i>Salmo salar</i>) cells. <i>Comparative Biochemistry and Physiology Part B: Comparative Biochemistry</i> , 1990 , 96, 73-79		5
40	Desaturases and elongases involved in long-chain polyunsaturated fatty acid biosynthesis in aquatic animals: From genes to functions.. <i>Progress in Lipid Research</i> , 2022 , 86, 101157	14.3	5
39	Development of a C18 Supercritical Fluid Chromatography-Tandem Mass Spectrometry Methodology for the Analysis of Very-Long-Chain Polyunsaturated Fatty Acid Lipid Matrices and Its Application to Fish Oil Substitutes Derived from Genetically Modified Oilseeds in the Aquaculture Sector. <i>ACS Omega</i> , 2020 , 5, 22288-22298	3.9	5

38	Dietary soybean oil aggravates the adverse effects of low salinity on intestinal health in juvenile mud crab <i>Scylla paramamosain</i> . <i>Ecotoxicology and Environmental Safety</i> , 2021 , 213, 112004	7	5
37	Performance, feed utilization, and hepatic metabolic response of weaned juvenile Atlantic bluefin tuna (<i>Thunnus thynnus</i> L.): effects of dietary lipid level and source. <i>Fish Physiology and Biochemistry</i> , 2019 , 45, 697-718	2.7	5
36	Dietary lipid and -3 long-chain PUFA levels impact growth performance and lipid metabolism of juvenile mud crab,. <i>British Journal of Nutrition</i> , 2021 , 125, 876-890	3.6	5
35	Impact of Dietary Carbohydrate/Protein Ratio on Hepatic Metabolism in Land-Locked Atlantic Salmon (L.). <i>Frontiers in Physiology</i> , 2018 , 9, 1751	4.6	5
34	The miR-15/16 Cluster Is Involved in the Regulation of Vertebrate LC-PUFA Biosynthesis by Targeting ppar α s Demonstrated in Rabbitfish <i>Siganus canaliculatus</i> . <i>Marine Biotechnology</i> , 2020 , 22, 475-487	3.4	4
33	Effects of dichlorvos and formalin on fatty acid metabolism of rainbow trout (<i>Oncorhynchus mykiss</i>) skin cells in primary culture. <i>Fish Physiology and Biochemistry</i> , 1998 , 18, 241-252	2.7	4
32	Dietary organic zinc promotes growth, immune response and antioxidant capacity by modulating zinc signaling in juvenile Pacific white shrimp (<i>Litopenaeus vannamei</i>). <i>Aquaculture Reports</i> , 2021 , 19, 100638	2.3	4
31	Dietary copper improves growth and regulates energy generation by mediating lipolysis and autophagy in hepatopancreas of Pacific white shrimp (<i>Litopenaeus vannamei</i>). <i>Aquaculture</i> , 2021 , 537, 736505	4.4	4
30	Could an El Niño event put dietary supplies of n-3 long-chain polyunsaturated fatty acids (EPA and DHA) in jeopardy. <i>European Journal of Lipid Science and Technology</i> , 2016 , 118, 1684-1691	3	4
29	Comparison of the growth performance and long-chain polyunsaturated fatty acids (LC-PUFA) biosynthetic ability of red tilapia (<i>Oreochromis mossambicus</i> ? <i>O. niloticus</i> ?) fed fish oil or vegetable oil diet at different salinities. <i>Aquaculture</i> , 2021 , 542, 736899	4.4	4
28	Impacts of dietary konjac glucomannan supplementation on growth, antioxidant capacity, hepatic lipid metabolism and inflammatory response in golden pompano (<i>Trachinotus ovatus</i>) fed a high fat diet. <i>Aquaculture</i> , 2021 , 545, 737113	4.4	4
27	Dietary fatty acids affect mitochondrial phospholipid compositions and mitochondrial gene expression of rainbow trout liver at different ages. <i>Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology</i> , 2015 , 185, 73-86	2.2	3
26	Isolation and functional characterisation of a stearoyl-CoA desaturase from the marine invertebrate <i>Octopus vulgaris</i> . <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2012 , 163, S46-S47	2.6	3
25	Stimulation of proliferation of an essential fatty acid-deficient fish cell line by C20 and C22 polyunsaturated fatty acids and effects on fatty acid composition. <i>Prostaglandins Leukotrienes and Essential Fatty Acids</i> , 1996 , 55, 345-56	2.8	3
24	Direct effects of temperature on phospholipid and polyunsaturated fatty acid metabolism in isolated brain cells from rainbow trout, <i>Oncorhynchus mykiss</i> . <i>Comparative Biochemistry and Physiology Part B: Comparative Biochemistry</i> , 1992 , 101, 353-9		3
23	Lipidomic profiling reveals molecular modification of lipids in hepatopancreas of juvenile mud crab (<i>Scylla paramamosain</i>) fed with different dietary DHA/EPA ratios. <i>Food Chemistry</i> , 2022 , 372, 131289	8.5	3
22	Dietary chromium modulates glucose homeostasis and induces oxidative stress in Pacific white shrimp (<i>Litopenaeus vannamei</i>). <i>Aquatic Toxicology</i> , 2021 , 240, 105967	5.1	3
21	Taurine metabolism and effects of inclusion levels in rotifer (<i>Brachionus rotundiformis</i> , Tschugunoff, 1921) on Atlantic bluefin tuna (<i>Thunnus thynnus</i> , L.) larvae. <i>Aquaculture</i> , 2019 , 510, 353-363	4.4	2

20	Dietary micronutrient composition affects fillet texture and muscle cell size in Atlantic salmon (<i>Salmo salar</i>). <i>Aquaculture Nutrition</i> , 2020 , 26, 936-945	3.2	2
19	Determination of n-3 HUFA content in Atlantic salmon flesh based on the lipid content, morphometric measurements and blood fatty acid composition: A modeling approach. <i>Journal of Applied Ichthyology</i> , 2009 , 25, 120-123	0.9	2
18	Triacylglycerol-, wax ester- and sterol ester-hydrolases in midgut of Atlantic salmon (<i>Salmo salar</i>). <i>Aquaculture Nutrition</i> , 2007 , 14, 070908014232001-???	3.2	2
17	Identification of miR-145 as a Key Regulator Involved in LC-PUFA Biosynthesis by Targeting Δ in the Marine Teleost. <i>Journal of Agricultural and Food Chemistry</i> , 2020 , 68, 15123-15133	5.7	2
16	What influences the intention to adopt aquaculture innovations? Concepts and empirical assessment of fish farmers' perceptions and beliefs about aquafeed containing non-conventional ingredients. <i>Aquaculture, Economics and Management</i> , 2021 , 25, 339-366	3.5	2
15	Effects of an alternating linseed oil-fish oil feeding strategy on growth, fatty acid restoration and expression of lipid related genes in black seabream (<i>A. schlegelii</i>). <i>Aquaculture</i> , 2022 , 547, 737456	4.4	2
14	Molecular cloning, characterization and nutritional regulation of key enzymes required for the effective utilization of marine wax esters by Atlantic salmon (<i>Salmo salar</i> L.). <i>Aquaculture Nutrition</i> , 2010 , 16, 483-495	3.2	1
13	Effects of growth factors on the metabolism of linolenate (18:3n-3) and eicosapentaenoate (20:5n-3) in rainbow trout (<i>Oncorhynchus mykiss</i>) astroglial cells in primary culture. <i>Comparative Biochemistry and Physiology Part B: Comparative Biochemistry</i> , 1993 , 105, 743-748		1
12	Investigation of the apolipoprotein fraction of isolated rat adrenal and bovine adrenocortical lipid droplets. <i>Lipids and Lipid Metabolism</i> , 1983 , 754, 159-65		1
11	Hepatopancreas transcriptomic and lipidomic analyses reveal the molecular responses of mud crab (<i>Scylla paramamosain</i>) to dietary ratio of docosahexaenoic acid to eicosapentaenoic acid. <i>Aquaculture</i> , 2022 , 551, 737903	4.4	1
10	Environmental adaptation in fish induced changes in the regulatory region of fatty acid elongase gene, <i>elovl5</i> , involved in long-chain polyunsaturated fatty acid biosynthesis.. <i>International Journal of Biological Macromolecules</i> , 2022 , 204, 144-153	7.9	0
9	Micronutrient supplementation affects DNA methylation in male gonads with potential intergenerational epigenetic inheritance involving the embryonic development through glutamate receptor-associated genes.. <i>BMC Genomics</i> , 2022 , 23, 115	4.5	0
8	Environmental salinity and dietary lipid nutrition strategy: Effects on flesh quality of the marine euryhaline crab <i>Scylla paramamosain</i> . <i>Food Chemistry</i> , 2021 , 361, 130160	8.5	0
7	Physiological responses and adaptive strategies to acute low-salinity environmental stress of the euryhaline marine fish black seabream (<i>Acanthopagrus schlegelii</i>). <i>Aquaculture</i> , 2022 , 554, 738117	4.4	0
6	Freshwater Macrophytes: A Potential Source of Minerals and Fatty Acids for Fish, Poultry, and Livestock.. <i>Frontiers in Nutrition</i> , 2022 , 9, 869425	6.2	0
5	Dietary calcium pyruvate could improve growth performance and reduce excessive lipid deposition in juvenile golden pompano (<i>Trachinotus ovatus</i>) fed a high fat diet.. <i>Fish Physiology and Biochemistry</i> , 2022 , 1	2.7	0
4	A comparison of regression models for defining EPA+DHA requirements using the gilthead seabream (<i>Sparus aurata</i>) as a model species. <i>Aquaculture</i> , 2022 , 556, 738308	4.4	0
3	No relationship between morphology changes and metabolism of Δ linolenate and eicosapentaenoate in rainbow trout (<i>Oncorhynchus mykiss</i>) astroglial cells in primary culture. <i>Comparative Biochemistry and Physiology C, Comparative Pharmacology and Toxicology</i> , 1993 , 106, 211-219		

- 2 Effects of n-3 and n-6 polyunsaturated fatty acids on the growth of fish cells in culture. *Biochemical Society Transactions*, **1990**, 18, 915-6 5.1
- 1 Effect of Lemna minor supplemented diets on growth, digestive physiology and expression of fatty acids biosynthesis genes of *Cyprinus carpio*.. *Scientific Reports*, **2022**, 12, 3711 4.9