

# Carlos Garcia De Leaniz

## List of Publications by Year in descending order

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122  
papers

4,339  
citations

108306

34  
h-index

129810

58  
g-index

152  
all docs

152  
docs citations

152  
times ranked

4853  
citing authors

#	ARTICLE	IF	CITATIONS
1	A critical review of adaptive genetic variation in Atlantic salmon: implications for conservation. <i>Biological Reviews</i> , 2007, 82, 173-211.	10.6	360
2	More than one million barriers fragment Europe's rivers. <i>Nature</i> , 2020, 588, 436-441.	35.8	358
3	Use of lumpfish for sea lice control in salmon farming: challenges and opportunities. <i>Reviews in Aquaculture</i> , 2018, 10, 683-702.	9.6	182
4	Population structure in the Atlantic salmon: insights from 40 years of research into genetic protein variation. <i>Journal of Fish Biology</i> , 2005, 67, 3-54.	1.5	160
5	Weir removal in salmonid streams: implications, challenges and practicalities. <i>Hydrobiologia</i> , 2008, 609, 83-96.	2.0	137
6	Mitochondrial DNA variation in Pleistocene and modern Atlantic salmon from the Iberian glacial refugium. <i>Molecular Ecology</i> , 2002, 11, 2037-2048.	3.6	117
7	Interpopulation Variation in the Atlantic Salmon Microbiome Reflects Environmental and Genetic Diversity. <i>Applied and Environmental Microbiology</i> , 2018, 84, .	3.2	116
8	MHC-mediated mate choice increases parasite resistance in salmon. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2008, 275, 1397-1403.	2.8	113
9	Environmental enrichment reduces maladaptive risk-taking behavior in salmon reared for conservation. <i>Biological Conservation</i> , 2011, 144, 1972-1979.	4.1	101
10	Behavioural adaptations of mussels to varying levels of food availability and predation risk. <i>Journal of Molluscan Studies</i> , 2010, 76, 348-353.	1.2	89
11	A comprehensive assessment of stream fragmentation in Great Britain. <i>Science of the Total Environment</i> , 2019, 673, 756-762.	8.1	87
12	Patterns of natural selection acting on the mitochondrial genome of a locally adapted fish species. <i>Genetics Selection Evolution</i> , 2015, 47, 58.	3.0	80
13	Winning the invasion roulette: escapes from fish farms increase admixture and facilitate establishment of non-native rainbow trout. <i>Evolutionary Applications</i> , 2011, 4, 660-671.	3.2	77
14	Contrasting effects of acute and chronic stress on the transcriptome, epigenome, and immune response of Atlantic salmon. <i>Epigenetics</i> , 2018, 13, 1191-1207.	2.9	75
15	Patterns of growth and smolting in autumn migrants from a Scottish population of Atlantic salmon, <i>Salmo salar</i> L.. <i>Journal of Fish Biology</i> , 1992, 41, 43-51.	1.5	74
16	Environmental plasticity and colonisation history in the Atlantic salmon microbiome: A translocation experiment. <i>Molecular Ecology</i> , 2020, 29, 886-898.	3.6	72
17	Selective exploitation of early running fish may induce genetic and phenotypic changes in Atlantic salmon. <i>Journal of Fish Biology</i> , 2005, 67, 129-145.	1.5	71
18	Natural hybridization between Atlantic salmon, <i>Salmo salar</i> , and brown trout, <i>Salmo trutta</i> , in northern Spain. <i>Journal of Fish Biology</i> , 1989, 34, 41-46.	1.5	65

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19	From Best to Pest: changing perspectives on the impact of exotic salmonids in the southern hemisphere. <i>Systematics and Biodiversity</i> , 2010, 8, 447-459.	1.2	59
20	Cortisol-Related Signatures of Stress in the Fish Microbiome. <i>Frontiers in Microbiology</i> , 2020, 11, 1621.	3.5	58
21	DNA Methylation Changes in the Sperm of Captive-Reared Fish: A Route to Epigenetic Introgression in Wild Populations. <i>Molecular Biology and Evolution</i> , 2019, 36, 2205-2211.	9.1	53
22	The Use of Barriers to Limit the Spread of Aquatic Invasive Animal Species: A Global Review. <i>Frontiers in Ecology and Evolution</i> , 2021, 9, .	2.3	53
23	Permanent Genetic Resources added to Molecular Ecology Resources Database 1 August 2010 – 30 September 2010. <i>Molecular Ecology Resources</i> , 2011, 11, 219-222.	4.9	49
24	Captive breeding of the endangered freshwater pearl mussel <i>Margaritifera margaritifera</i> . <i>Endangered Species Research</i> , 2010, 12, 1-9.	2.3	48
25	Transcriptomic response to parasite infection in Nile tilapia ( <i>Oreochromis niloticus</i> ) depends on rearing density. <i>BMC Genomics</i> , 2018, 19, 723.	2.9	46
26	Elements in the development of conservation plans for Atlantic salmon ( <i>Salmo salar</i> ). <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1998, 55, 312-323.	1.3	45
27	Mussels flexing their muscles: a new method for quantifying bivalve behaviour. <i>Marine Biology</i> , 2007, 151, 1195-1204.	1.5	45
28	Silver spoons in the rough: can environmental enrichment improve survival of hatchery Atlantic salmon <i>Salmo salar</i> in the wild?. <i>Journal of Fish Biology</i> , 2014, 85, 1972-1991.	1.5	45
29	Maladaptation and phenotypic mismatch in hatchery-reared Atlantic salmon <i>Salmo salar</i> released in the wild. <i>Journal of Fish Biology</i> , 2014, 85, 1927-1945.	1.5	45
30	Impacts of artificial barriers on the connectivity and dispersal of vascular macrophytes in rivers: A critical review. <i>Freshwater Biology</i> , 2020, 65, 1165-1180.	2.4	44
31	Discrimination between farmed and free-living invasive salmonids in Chilean Patagonia using stable isotope analysis. <i>Biological Invasions</i> , 2011, 13, 203-213.	2.4	41
32	Improving Species Distribution Modelling of freshwater invasive species for management applications. <i>PLoS ONE</i> , 2019, 14, e0217896.	2.5	41
33	Valve gape and exhalant pumping in bivalves: optimization of measurement. <i>Aquatic Biology</i> , 2009, 6, 191-200.	1.5	41
34	Selective effects of small barriers on river-resident fish. <i>Journal of Applied Ecology</i> , 2021, 58, 1487-1498.	3.9	39
35	DNA Barcoding and Microsatellites Help Species Delimitation and Hybrid Identification in Endangered Galaxiid Fishes. <i>PLoS ONE</i> , 2012, 7, e32939.	2.5	36
36	Does the parasitic freshwater pearl mussel <i>M. margaritifera</i> harm its host?. <i>Hydrobiologia</i> , 2014, 735, 191-201.	2.0	35

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37	Density-dependent changes in neophobia and stress-coping styles in the world's oldest farmed fish. <i>Royal Society Open Science</i> , 2018, 5, 181473.	2.5	34
38	Environmental enrichment induces intergenerational behavioural and epigenetic effects on fish. <i>Molecular Ecology</i> , 2020, 29, 2288-2299.	3.6	34
39	The early marine distribution of Atlantic salmon in the North-east Atlantic: A genetically informed stock-specific synthesis. <i>Fish and Fisheries</i> , 2021, 22, 1274-1306.	5.2	34
40	Spatio-Temporal Variation in Length-Weight Relationships and Condition of the Ribbonfish <i>Trichiurus lepturus</i> (Linnaeus, 1758): Implications for Fisheries Management. <i>PLoS ONE</i> , 2016, 11, e0161989.	2.5	33
41	Fear contagion in zebrafish: a behaviour affected by familiarity. <i>Animal Behaviour</i> , 2019, 153, 95-103.	2.0	32
42	Development, validation and testing of an Operational Welfare Score Index for farmed lumpfish <i>Cyclopterus lumpus</i> L. <i>Aquaculture</i> , 2021, 531, 735777.	3.5	29
43	Addressing the welfare needs of farmed lumpfish: Knowledge gaps, challenges and solutions. <i>Reviews in Aquaculture</i> , 2022, 14, 139-155.	9.6	28
44	Growth-history perspective on the decreasing age and size at maturation of exploited Atlantic salmon. <i>Marine Ecology - Progress Series</i> , 2009, 376, 245-252.	1.9	28
45	Genetic and phenotypic differentiation of lumpfish ( <i>Cyclopterus lumpus</i> ) across the North Atlantic: implications for conservation and aquaculture. <i>PeerJ</i> , 2018, 6, e5974.	2.0	28
46	Effect of anthropogenic feeding regimes on activity rhythms of laboratory mussels exposed to natural light. <i>Hydrobiologia</i> , 2010, 655, 197-204.	2.0	27
47	The diversity of juvenile salmonids does not affect their competitive impact on a native galaxiid. <i>Biological Invasions</i> , 2009, 11, 1955-1961.	2.4	26
48	An optimised eDNA protocol for detecting fish in lentic and lotic freshwaters using a small water volume. <i>PLoS ONE</i> , 2019, 14, e0219218.	2.5	26
49	Contrasting DNA methylation responses of inbred fish lines to different rearing environments. <i>Epigenetics</i> , 2019, 14, 939-948.	2.9	26
50	Something smells fishy: predator-naïve salmon use diet cues, not kairomones, to recognize a sympatric mammalian predator. <i>Animal Behaviour</i> , 2011, 82, 619-625.	2.0	24
51	Impacts of large and small barriers on fish assemblage composition assessed using environmental DNA metabarcoding. <i>Science of the Total Environment</i> , 2021, 790, 148054.	8.1	24
52	A drop in the ocean: Monitoring fish communities in spawning areas using environmental DNA. <i>Environmental DNA</i> , 2021, 3, 43-54.	5.7	23
53	Effect of artificial barriers on the distribution of the invasive signal crayfish and Chinese mitten crab. <i>Scientific Reports</i> , 2019, 9, 7230.	3.4	22
54	Monitoring the eradication of the highly invasive topmouth gudgeon ( <i>Pseudorasbora parva</i> ) using a novel eDNA assay. <i>Environmental DNA</i> , 2019, 1, 74-85.	5.7	21

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55	Effective size of an Atlantic salmon ( <i>Salmo salar</i> L.) metapopulation in Northern Spain. <i>Conservation Genetics</i> , 2010, 11, 1559-1565.	1.5	20
56	Less can be more: loss of MHC functional diversity can reflect adaptation to novel conditions during fish invasions. <i>Ecology and Evolution</i> , 2013, 3, 3359-3368.	1.9	20
57	Eco-immunology of fish invasions: the role of MHC variation. <i>Immunogenetics</i> , 2014, 66, 393-402.	2.5	20
58	Comparative transcriptomics reveal conserved impacts of rearing density on immune response of two important aquaculture species. <i>Fish and Shellfish Immunology</i> , 2020, 104, 192-201.	3.7	20
59	One size does not fit all: inter- and intraspecific variation in the swimming performance of contrasting freshwater fish. , 2020, 8, coaa126.		19
60	Dispersal of Atlantic salmon fry from a natural redd: evidence for undergravel movements?. <i>Canadian Journal of Zoology</i> , 1993, 71, 1454-1457.	1.1	18
61	A microsatellite baseline for genetic stock identification of European Atlantic salmon ( <i>Salmo salar</i> ) Tj ETQq1 1 0.784314 rgBT /Overlock	2.5	17
62	Trophic Plasticity of the Highly Invasive Topmouth Gudgeon ( <i>Pseudorasbora parva</i> ) Inferred From Stable Isotope Analysis. <i>Frontiers in Ecology and Evolution</i> , 2020, 8, .	2.3	17
63	Night stocking facilitates nocturnal migration of hatchery-reared Atlantic salmon, <i>Salmo salar</i> , smolts. <i>Fisheries Management and Ecology</i> , 2009, 16, 10-13.	1.9	16
64	And the Last Shall Be First: Heterochrony and Compensatory Marine Growth in Sea Trout ( <i>Salmo</i> ) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	2.5	16
65	Contrasting patterns of genetic and phenotypic differentiation in two invasive salmonids in the southern hemisphere. <i>Evolutionary Applications</i> , 2014, 7, 921-936.	3.2	16
66	Early life stress causes persistent impacts on the microbiome of Atlantic salmon. <i>Comparative Biochemistry and Physiology Part D: Genomics and Proteomics</i> , 2021, 40, 100888.	1.1	16
67	Local parasite pressures and host genotype modulate epigenetic diversity in a mixed-mating fish. <i>Ecology and Evolution</i> , 2019, 9, 8736-8748.	1.9	15
68	Using eDNA Metabarcoding to Monitor Changes in Fish Community Composition After Barrier Removal. <i>Frontiers in Ecology and Evolution</i> , 2021, 9, .	2.3	15
69	Individual recognition of juvenile salmonids using melanophore patterns. <i>Journal of Fish Biology</i> , 1994, 45, 417-422.	1.5	14
70	The male handicap: male-biased mortality explains skewed sex ratios in brown trout embryos. <i>Biology Letters</i> , 2016, 12, 20160693.	2.4	14
71	Transcriptomic response to aquaculture intensification in Nile tilapia. <i>Evolutionary Applications</i> , 2019, 12, 1757-1771.	3.2	14
72	Mixed-Effects Modelling of Scale Growth Profiles Predicts the Occurrence of Early and Late Fish Migrants. <i>PLoS ONE</i> , 2013, 8, e61744.	2.5	14

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73	Metapopulation dynamics of a diadromous galaxiid fish and potential effects of salmonid aquaculture. <i>Freshwater Biology</i> , 2012, 57, 1241-1252.	2.4	13
74	Contrasting seasonal and spatial distribution of native and invasive <i>Codium</i> seaweed revealed by targeting species-specific eDNA. <i>Ecology and Evolution</i> , 2019, 9, 8567-8579.	1.9	13
75	Detection and mapping of mtDNA SNPs in Atlantic salmon using high throughput DNA sequencing. <i>BMC Genomics</i> , 2011, 12, 179.	2.9	11
76	Effects of coastal fish farms on body size and isotope composition of wild penaeid prawn. <i>Fisheries Research</i> , 2015, 172, 50-56.	1.8	11
77	Regional mtDNA SNP differentiation in European Atlantic salmon ( <i>Salmo salar</i> ): an assessment of potential utility for determination of natal origin. <i>ICES Journal of Marine Science</i> , 2012, 69, 1625-1636.	2.5	10
78	A genetic marker for the maternal identification of Atlantic salmon–Brown trout hybrids. <i>Conservation Genetics Resources</i> , 2013, 5, 47-49.	0.8	10
79	Immune-Related Transcriptional Responses to Parasitic Infection in a Naturally Inbred Fish: Roles of Genotype and Individual Variation. <i>Genome Biology and Evolution</i> , 2018, 10, 319-327.	2.6	10
80	Historical legacies of river pollution reconstructed from fish scales. <i>Environmental Pollution</i> , 2018, 234, 253-259.	7.6	10
81	Beware small dams, they can do damage, too. <i>Nature</i> , 2019, 570, 164-164.	35.8	10
82	A new high-resolution melt curve eDNA assay to monitor the simultaneous presence of invasive brown trout ( <i>Salmo trutta</i> ) and endangered galaxiids. <i>Environmental DNA</i> , 2021, 3, 561-572.	5.7	9
83	Global Dam Watch: curated data and tools for management and decision making. <i>Environmental Research: Infrastructure and Sustainability</i> , 2021, 1, 033003.	2.1	9
84	Can migrants escape from density dependence?. <i>Ecology and Evolution</i> , 2013, 3, 2524-2534.	1.9	8
85	Genetic signatures of historical dispersal of fish threatened by biological invasions: the case of galaxiids in South America. <i>Journal of Biogeography</i> , 2015, 42, 1942-1952.	3.0	8
86	Low cost, nature-based solutions for managing aquatic resources: integrating the principles of Ecohydrology and the Circular Economy. <i>Ecohydrology and Hydrobiology</i> , 2018, 18, 309-310.	2.4	8
87	Quantitative assessment of fish larvae community composition in spawning areas using metabarcoding of bulk samples. <i>Ecological Applications</i> , 2021, 31, e02284.	3.9	8
88	More than meets the eye: syntopic and morphologically similar mangrove killifish species show different mating systems and patterns of genetic structure along the Brazilian coast. <i>Heredity</i> , 2020, 125, 340-352.	2.7	7
89	Seasonal and Spatial Variation in Growth and Abundance of Zebra Mussel ( <i>Dreissena polymorpha</i> ) in a Recently Invaded Artificial Lake: Implications for Management. <i>Frontiers in Ecology and Evolution</i> , 2020, 8, .	2.3	7
90	Boat ramps facilitate the dispersal of the highly invasive zebra mussel ( <i>Dreissena polymorpha</i> ). <i>Biological Invasions</i> , 2021, 23, 1487-1496.	2.4	7

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91	Phylogenomics reveals extensive introgression and a case of mito-nuclear discordance in the killifish genus <i>Kryptolebias</i> . <i>Molecular Phylogenetics and Evolution</i> , 2022, 177, 107617.	2.9	7
92	Over 200,000 kilometers of free-flowing river habitat in Europe is altered due to impoundments. <i>Nature Communications</i> , 2023, 14, .	13.0	7
93	Shrinking fish: comparisons of prehistoric and contemporary salmonids indicate decreasing size at age across millennia. <i>Royal Society Open Science</i> , 2014, 1, 140026.	2.5	6
94	Against the Odds: Hybrid Zones between Mangrove Killifish Species with Different Mating Systems. <i>Genes</i> , 2021, 12, 1486.	2.4	6
95	Genetic diversity and parasite facilitated establishment of the invasive signal crayfish ( <i>Pacifastacus</i> ) Tj ETQq1 1 0.784314 ggBT /Over	1.9	5
96	A novel qPCR assay for the rapid detection and quantification of the lumpfish ( <i>Cyclopterus lumpus</i> ) microsporidian parasite <i>Nucleospora cyclopteri</i> . <i>Aquaculture</i> , 2021, 531, 735779.	3.5	5
97	Filling the gaps: phylogeography of the self-fertilizing <i>Kryptolebias</i> species (Cyprinodontiformes: Rivulidae) along South American mangroves. <i>Journal of Fish Biology</i> , 2021, 99, 644-655.	1.5	5
98	Inbred and furious: negative association between aggression and genetic diversity in highly inbred fish. <i>Molecular Ecology</i> , 2013, 22, 2292-2300.	3.6	4
99	Colour plasticity in response to social context and parasitic infection in a self-fertilizing fish. <i>Royal Society Open Science</i> , 2019, 6, 181418.	2.5	4
100	Smell of Infection: A Novel, Noninvasive Method for Detection of Fish Excretory-Secretory Proteins. <i>Journal of Proteome Research</i> , 2019, 18, 1371-1379.	3.8	4
101	Personality profiling may help select better cleaner fish for sea-lice control in salmon farming. <i>Applied Animal Behaviour Science</i> , 2021, 243, 105459.	1.9	4
102	Temporal and spatial instability in neutral and adaptive (MHC) genetic variation in marginal salmon populations. <i>Scientific Reports</i> , 2017, 7, 42416.	3.4	3
103	The use of laparoscopy for non-destructive disease screening of broodstock Atlantic lumpfish, <i>Cyclopterus lumpus</i> Linnaeus. <i>Journal of Fish Diseases</i> , 2020, 43, 1107-1110.	1.9	3
104	SNP analyses and acoustic tagging reveal multiple origins and widespread dispersal of invasive brown trout in the Falkland Islands. <i>Evolutionary Applications</i> , 2021, 14, 2134-2144.	3.2	3
105	MHC class II population differentiation in a commercial fish, the European sea bass ( <i>Dicentrarchus</i> ) Tj ETQq1 1 0.784314 rgBT /O	1.7	3
106	Additive and non-additive epigenetic signatures of natural hybridization between fish species with different mating systems. <i>Epigenetics</i> , 2022, 17, 2356-2365.	2.9	3
107	Maladaptation and phenotypic mismatch in cultured Atlantic salmon used for stocking. <i>Journal of Fish Biology</i> , 2004, 65, 317-318.	1.5	2
108	Sea lice loads correlate with the diversity at the Major Histocompatibility Complex related loci in farmed Atlantic salmon, <i>Salmo salar</i> . <i>Journal of Fish Diseases</i> , 2019, 42, 1091-1093.	1.9	2

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109	Individual recognition of juvenile salmonids using melanophore patterns. <i>Journal of Fish Biology</i> , 1994, 45, 417-422.	1.5	2
110	Conservation of endangered galaxiid fishes in the Falkland Islands requires urgent action on invasive brown trout. <i>Biological Invasions</i> , 2023, 25, 1023-1033.	2.4	2
111	Fine-scale environmentally associated spatial structure of lumpfish ( <i>Cyclopterus lumpus</i> ) across the Northwest Atlantic. <i>Evolutionary Applications</i> , 2023, 16, 1619-1636.	3.2	2
112	Inland navigation and land use interact to impact European freshwater biodiversity. <i>Nature Ecology and Evolution</i> , 2024, 8, 1098-1108.	7.9	2
113	Phenotypic Convergence in Sea Bass ( <i>Dicentrarchus labrax</i> ) Escaping From Fish Farms: The Onset of Feralization?. <i>Frontiers in Marine Science</i> , 2021, 8, .	2.5	1
114	Experimental evidence of chemical attraction in the mutualistic zebra mussel-killer shrimp system. <i>PeerJ</i> , 2019, 7, e8075.	2.0	1
115	Models based on chronological data correctly predict the spread of freshwater aliens, and reveal a strong influence of river access, anthropogenic activities and climate regimes. <i>Aquatic Invasions</i> , 2023, 18, 455-472.	2.0	1
116	Walter Crozier Jordan (Bill) 1962-2011. <i>Journal of Fish Biology</i> , 2011, 79, 1089-1093.	1.5	0
117	Effects of microalgae dietary oil replacement on growth, omega-3 deposition and gut microbiome composition of Nile tilapia ( <i>Oreochromis niloticus</i> ). <i>Aquaculture, Fish and Fisheries</i> , 2024, 4, .	1.1	0
118	Microbiome and epigenetic variation in wild fish with low genetic diversity. <i>Nature Communications</i> , 2024, 15, .	13.0	0
119	Modelling remote barrier detection to achieve free-flowing river targets. <i>Environmental Research Letters</i> , 2024, 19, 084055.	5.2	0
120	An automated separator to exclude lumpfish with deformed suckers. , 2024, 1, 6-9.		0
121	A global systematic map of knowledge of inland commercial navigation effects on freshwater ecosystems. <i>Journal of Environmental Management</i> , 2024, 370, 122474.	7.9	0
122	The Global Dam Watch database of river barrier and reservoir information for large-scale applications. <i>Scientific Data</i> , 2024, 11, .	5.3	0