

# R D Houston

## List of Publications by Year in descending order

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86  
papers

5,380  
citations

87843

38  
h-index

95218

68  
g-index

96  
all docs

96  
docs citations

96  
times ranked

3113  
citing authors

#	ARTICLE	IF	CITATIONS
1	Harnessing genomics to fast-track genetic improvement in aquaculture. <i>Nature Reviews Genetics</i> , 2020, 21, 389-409.	7.7	286
2	Major Quantitative Trait Loci Affect Resistance to Infectious Pancreatic Necrosis in Atlantic Salmon ( <i>Salmo salar</i> ). <i>Genetics</i> , 2008, 178, 1109-1115.	1.2	262
3	Development and validation of a high density SNP genotyping array for Atlantic salmon ( <i>Salmo salar</i> ). <i>BMC Genomics</i> , 2014, 15, 90.	1.2	219
4	Applications of genotyping by sequencing in aquaculture breeding and genetics. <i>Reviews in Aquaculture</i> , 2018, 10, 670-682.	4.6	217
5	Genome wide association and genomic prediction for growth traits in juvenile farmed Atlantic salmon using a high density SNP array. <i>BMC Genomics</i> , 2015, 16, 969.	1.2	211
6	Genomic prediction of host resistance to sea lice in farmed Atlantic salmon populations. <i>Genetics Selection Evolution</i> , 2016, 48, 47.	1.2	203
7	Linkage maps of the Atlantic salmon ( <i>Salmo salar</i> ) genome derived from RAD sequencing. <i>BMC Genomics</i> , 2014, 15, 166.	1.2	151
8	Genome-Wide Association and Genomic Selection for Resistance to Amoebic Gill Disease in Atlantic Salmon. <i>G3: Genes, Genomes, Genetics</i> , 2018, 8, 1195-1203.	0.8	142
9	The susceptibility of Atlantic salmon fry to freshwater infectious pancreatic necrosis is largely explained by a major QTL. <i>Heredity</i> , 2010, 105, 318-327.	1.2	139
10	Genomic Prediction of Resistance to Pasteurellosis in Gilthead Sea Bream ( <i>Sparus aurata</i> ) Using 2b-RAD Sequencing. <i>G3: Genes, Genomes, Genetics</i> , 2016, 6, 3693-3700.	0.8	129
11	Potential of Genome Editing to Improve Aquaculture Breeding and Production. <i>Trends in Genetics</i> , 2019, 35, 672-684.	2.9	125
12	Characterisation of QTL-linked and genome-wide restriction site-associated DNA (RAD) markers in farmed Atlantic salmon. <i>BMC Genomics</i> , 2012, 13, 244.	1.2	120
13	Genetics and genomics of disease resistance in salmonid species. <i>Frontiers in Genetics</i> , 2014, 5, 415.	1.1	120
14	Potential of genotyping-by-sequencing for genomic selection in livestock populations. <i>Genetics Selection Evolution</i> , 2015, 47, 12.	1.2	107
15	Genomic Selection for Growth Traits in Pacific Oyster ( <i>Crassostrea gigas</i> ): Potential of Low-Density Marker Panels for Breeding Value Prediction. <i>Frontiers in Genetics</i> , 2018, 9, 391.	1.1	105
16	Future directions in breeding for disease resistance in aquaculture species. <i>Revista Brasileira De Zootecnia</i> , 2017, 46, 545-551.	0.3	104
17	Functional Annotation of All Salmonid Genomes (FAASG): an international initiative supporting future salmonid research, conservation and aquaculture. <i>BMC Genomics</i> , 2017, 18, 484.	1.2	99
18	Development of a Medium Density Combined-Species SNP Array for Pacific and European Oysters ( <i>Crassostrea gigas</i> and <i>Ostrea edulis</i> ). <i>G3: Genes, Genomes, Genetics</i> , 2017, 7, 2209-2218.	0.8	97

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19	Genotype Imputation To Improve the Cost-Efficiency of Genomic Selection in Farmed Atlantic Salmon. <i>G3: Genes, Genomes, Genetics</i> , 2017, 7, 1377-1383.	0.8	93
20	A chromosome-level genome assembly for the Pacific oyster <i>Crassostrea gigas</i> . <i>GigaScience</i> , 2021, 10, .	3.3	88
21	Genome-wide association and genomic prediction of resistance to viral nervous necrosis in European sea bass ( <i>Dicentrarchus labrax</i> ) using RAD sequencing. <i>Genetics Selection Evolution</i> , 2018, 50, 30.	1.2	87
22	Accuracy of Genomic Evaluations of Juvenile Growth Rate in Common Carp ( <i>Cyprinus carpio</i> ) Using Genotyping by Sequencing. <i>Frontiers in Genetics</i> , 2018, 9, 82.	1.1	85
23	Genomics in aquaculture to better understand species biology and accelerate genetic progress. <i>Frontiers in Genetics</i> , 2015, 6, 128.	1.1	82
24	Amelanocortin-4 receptor(MC4R) polymorphism is associated with performance traits in divergently selected large white pig populations. <i>Animal Genetics</i> , 2004, 35, 386-390.	0.6	79
25	Gene expression comparison of resistant and susceptible Atlantic salmon fry challenged with Infectious Pancreatic Necrosis virus reveals a marked contrast in immune response. <i>BMC Genomics</i> , 2016, 17, 279.	1.2	78
26	The genetic architecture of growth and fillet traits in farmed Atlantic salmon ( <i>Salmo salar</i> ). <i>BMC Genetics</i> , 2015, 16, 51.	2.7	77
27	Mapping and validation of a major QTL affecting resistance to pancreas disease (salmonid alphavirus) in Atlantic salmon ( <i>Salmo salar</i> ). <i>Heredity</i> , 2015, 115, 405-414.	1.2	77
28	Atlantic salmon ( <i>Salmo salar</i> L.) genetics in the 21st century: taking leaps forward in aquaculture and biological understanding. <i>Animal Genetics</i> , 2019, 50, 3-14.	0.6	66
29	A Genome-Wide Association Study for Host Resistance to Ostreid Herpesvirus in Pacific Oysters ( <i>Crassostrea gigas</i> ). <i>G3: Genes, Genomes, Genetics</i> , 2018, 8, 1273-1280.	0.8	63
30	Optimizing Low-Cost Genotyping and Imputation Strategies for Genomic Selection in Atlantic Salmon. <i>G3: Genes, Genomes, Genetics</i> , 2020, 10, 581-590.	0.8	61
31	Genomic Prediction Using Low Density Marker Panels in Aquaculture: Performance Across Species, Traits, and Genotyping Platforms. <i>Frontiers in Genetics</i> , 2020, 11, 124.	1.1	61
32	Discovery and Functional Annotation of Quantitative Trait Loci Affecting Resistance to Sea Lice in Atlantic Salmon. <i>Frontiers in Genetics</i> , 2019, 10, 56.	1.1	59
33	Accuracy of genotype imputation and genomic predictions in a two-generation farmed Atlantic salmon population using high-density and low-density SNP panels. <i>Aquaculture</i> , 2018, 491, 147-154.	1.7	56
34	Gene Expression Response to Sea Lice in Atlantic Salmon Skin: RNA Sequencing Comparison Between Resistant and Susceptible Animals. <i>Frontiers in Genetics</i> , 2018, 9, 287.	1.1	50
35	Optimizing Genomic Prediction of Host Resistance to Koi Herpesvirus Disease in Carp. <i>Frontiers in Genetics</i> , 2019, 10, 543.	1.1	48
36	Genetic differences in host infectivity affect disease spread and survival in epidemics. <i>Scientific Reports</i> , 2019, 9, 4924.	1.6	48

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37	Single nucleotide polymorphisms in the <i>insulin-like growth factor 1</i> ( <i>IGF1</i> ) gene are associated with growth-related traits in farmed Atlantic salmon. <i>Animal Genetics</i> , 2014, 45, 709-715.	0.6	46
38	QTL affecting morphometric traits and stress response in the gilthead seabream ( <i>Sparus aurata</i> ). <i>Aquaculture</i> , 2011, 319, 58-66.	1.7	42
39	Potential of genomic selection for improvement of resistance to ostreid herpesvirus in Pacific oyster ( <i>Crassostrea gigas</i> ). <i>Animal Genetics</i> , 2020, 51, 249-257.	0.6	41
40	Construction and Annotation of a High Density SNP Linkage Map of the Atlantic Salmon ( <i>Salmo</i> )	0.8	40
41	High-resolution mapping of the recombination landscape of the phytopathogen <i>Fusarium graminearum</i> suggests two-speed genome evolution. <i>Molecular Plant Pathology</i> , 2018, 19, 341-354.	2.0	40
42	Detailed insights into pan-European population structure and inbreeding in wild and hatchery Pacific oysters ( <i>Crassostrea gigas</i> ) revealed by genome-wide SNP data. <i>Evolutionary Applications</i> , 2019, 12, 519-534.	1.5	39
43	Efficient CRISPR/Cas9 genome editing in a salmonid fish cell line using a lentivirus delivery system. <i>BMC Biotechnology</i> , 2020, 20, 35.	1.7	39
44	Genomics Toolbox for Farmed Fish. <i>Reviews in Fisheries Science</i> , 2008, 16, 3-15.	2.1	38
45	Mapping and Sequencing of a Significant Quantitative Trait Locus Affecting Resistance to Koi Herpesvirus in Common Carp. <i>G3: Genes, Genomes, Genetics</i> , 2018, 8, 3507-3513.	0.8	38
46	Current status and potential of genomic selection to improve selective breeding in the main aquaculture species of International Council for the Exploration of the Sea (ICES) member countries. <i>Aquaculture Reports</i> , 2021, 20, 100700.	0.7	37
47	Verification of SNPs Associated with Growth Traits in Two Populations of Farmed Atlantic Salmon. <i>International Journal of Molecular Sciences</i> , 2016, 17, 5.	1.8	36
48	Genetic parameters for resistance to Tilapia Lake Virus (TiLV) in Nile tilapia ( <i>Oreochromis niloticus</i> ). <i>Aquaculture</i> , 2020, 522, 735126.	1.7	36
49	Segregation of infectious pancreatic necrosis resistance QTL in the early life cycle of Atlantic Salmon ( <i>Salmo salar</i> ). <i>Animal Genetics</i> , 2010, 41, 531-536.	0.6	34
50	Detection of QTL affecting harvest traits in a commercial Atlantic salmon population. <i>Animal Genetics</i> , 2009, 40, 753-755.	0.6	32
51	A QTL affecting daily feed intake maps to Chromosome 2 in pigs. <i>Mammalian Genome</i> , 2005, 16, 464-470.	1.0	31
52	Balancing selection at a premature stop mutation in the myostatin gene underlies a recessive leg weakness syndrome in pigs. <i>PLoS Genetics</i> , 2019, 15, e1007759.	1.5	31
53	Population Structure and Genetic Diversity of Nile Tilapia ( <i>Oreochromis niloticus</i> ) Strains Cultured in Tanzania. <i>Frontiers in Genetics</i> , 2019, 10, 1269.	1.1	31
54	Development and Validation of an Open Access SNP Array for Nile Tilapia ( <i>Oreochromis</i> )	0.8	31

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55	Genetic improvement technologies to support the sustainable growth of UK aquaculture. <i>Reviews in Aquaculture</i> , 2021, 13, 1958-1985.	4.6	31
56	Development and testing of a combined species SNP array for the European seabass ( <i>Dicentrarchus labrax</i> ). <i>Frontiers in Genetics</i> , 2021, 12, 731107.	1.3	31
57	Exploring the utility of cross-laboratory RAD-sequencing datasets for phylogenetic analysis. <i>BMC Research Notes</i> , 2015, 8, 299.	0.6	29
58	A major quantitative trait locus affecting resistance to Tilapia lake virus in farmed Nile tilapia ( <i>Oreochromis niloticus</i> ). <i>Heredity</i> , 2021, 127, 334-343.	1.2	29
59	Detection and Confirmation of a Major QTL Affecting Resistance to Infectious Pancreatic Necrosis (IPN) in Atlantic Salmon ( <i>Salmo Salar</i> ). <i>Developments in Biologicals</i> , 2008, 132, 199-204.	0.4	29
60	Sequencing and Characterisation of an Extensive Atlantic Salmon ( <i>Salmo salar</i> L.) MicroRNA Repertoire. <i>PLoS ONE</i> , 2013, 8, e70136.	1.1	29
61	miRNAs Predicted to Regulate Host Anti-viral Gene Pathways in IPNV-Challenged Atlantic Salmon Fry Are Affected by Viral Load, and Associated With the Major IPN Resistance QTL Genotypes in Late Infection. <i>Frontiers in Immunology</i> , 2020, 11, 2113.	2.2	28
62	Optimizing hatchery practices for genetic improvement of marine bivalves. <i>Reviews in Aquaculture</i> , 2021, 13, 2289-2304.	4.6	28
63	Surrogate broodstock to enhance biotechnology research and applications in aquaculture. <i>Biotechnology Advances</i> , 2021, 49, 107756.	6.0	28
64	A SNP in the 5' flanking region of the myostatin-1b gene is associated with harvest traits in Atlantic salmon ( <i>Salmo salar</i> ). <i>BMC Genetics</i> , 2013, 14, 112.	2.7	27
65	Maternal inheritance of deltamethrin resistance in the salmon louse <i>Lepeophtheirus salmonis</i> (Krøyer) is associated with unique mtDNA haplotypes. <i>PLoS ONE</i> , 2017, 12, e0180625.	1.1	27
66	SNP markers for the genetic characterization of Mexican shrimp broodstocks. <i>Genomics</i> , 2018, 110, 423-429.	1.3	26
67	Characterising the mechanisms underlying genetic resistance to amoebic gill disease in Atlantic salmon using RNA sequencing. <i>BMC Genomics</i> , 2020, 21, 271.	1.2	23
68	The nedd-8 activating enzyme gene underlies genetic resistance to infectious pancreatic necrosis virus in Atlantic salmon. <i>Genomics</i> , 2021, 113, 3842-3850.	1.3	22
69	A Polymorphism in the 5'-Untranslated Region of the Porcine Cholecystokinin Type A Receptor Gene Affects Feed Intake and Growth. <i>Genetics</i> , 2006, 174, 1555-1563.	1.2	21
70	Potential of genomic technologies to improve disease resistance in molluscan aquaculture. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20200168.	1.8	18
71	Quantitative trait loci and genes associated with salmonid alphavirus load in Atlantic salmon: implications for pancreas disease resistance and tolerance. <i>Scientific Reports</i> , 2020, 10, 10393.	1.6	17
72	Characterizing the genetic structure of introduced Nile tilapia ( <i>Oreochromis niloticus</i> ) strains in Tanzania using double digest RAD sequencing. <i>Aquaculture International</i> , 2020, 28, 477-492.	1.1	16

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73	Characterization of OAR1 and OAR18 QTL associated with muscle depth in British commercial terminal sire sheep. <i>Animal Genetics</i> , 2011, 42, 172-180.	0.6	15
74	Efficient Genome Editing in Multiple Salmonid Cell Lines Using Ribonucleoprotein Complexes. <i>Marine Biotechnology</i> , 2020, 22, 717-724.	1.1	15
75	Changed Patterns of Genomic Variation Following Recent Domestication: Selection Sweeps in Farmed Atlantic Salmon. <i>Frontiers in Genetics</i> , 2020, 11, 264.	1.1	15
76	Investigating mechanisms underlying genetic resistance to Salmon Rickettsial Syndrome in Atlantic salmon using RNA sequencing. <i>BMC Genomics</i> , 2021, 22, 156.	1.2	15
77	Assessing the genetic diversity of farmed and wild Rufiji tilapia ( <i>Oreochromis urolepis</i> ) Tj ETQq1 1 0.784314 rgBT /Overlock, 10 Tf 50	0.8	12
78	Developments in marine invertebrate primary culture reveal novel cell morphologies in the model bivalve <i>Crassostrea gigas</i> . <i>PeerJ</i> , 2020, 8, e9180.	0.9	12
79	The impact of genetic relationship between training and validation populations on genomic prediction accuracy in Atlantic salmon. <i>Aquaculture Reports</i> , 2022, 23, 101033.	0.7	12
80	Exploring genetic resistance to infectious salmon anaemia virus in Atlantic salmon by genome-wide association and RNA sequencing. <i>BMC Genomics</i> , 2021, 22, 345.	1.2	11
81	The cholecystokinin type A receptor g.179A>G polymorphism affects feeding rate. <i>Animal Genetics</i> , 2008, 39, 187-188.	0.6	10
82	Assessment of genetic diversity and population structure in cultured Australian Pacific oysters. <i>Animal Genetics</i> , 2019, 50, 686-694.	0.6	9
83	Novel insights into the genetic relationship between growth and disease resistance in an aquaculture strain of Coho salmon ( <i>Oncorhynchus kisutch</i> ). <i>Aquaculture</i> , 2019, 511, 734207.	1.7	9
84	Transcriptome Profiling of Pacu ( <i>Piaractus mesopotamicus</i> ) Challenged With Pathogenic <i>Aeromonas hydrophila</i> : Inference on Immune Gene Response. <i>Frontiers in Genetics</i> , 2020, 11, 604.	1.1	8
85	The role of energy reserves in common carp performance inferred from phenotypic and genetic parameters. <i>Aquaculture</i> , 2021, 541, 736799.	1.7	5
86	Genetic relationship between koi herpesvirus disease resistance and production traits inferred from sibling performance in Amur mirror carp. <i>Aquaculture</i> , 2020, 520, 734986.	1.7	4