List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Armaments and ornaments: an evolutionary explanation of traits of dual utility. Biological Journal of the Linnean Society, 1996, 58, 385-399.	1.6	559
2	The Origins of Cerebral Asymmetry: A Review of Evidence of Behavioural and Brain Lateralization in Fishes, Reptiles and Amphibians. Neuroscience and Biobehavioral Reviews, 1998, 22, 411-426.	6.1	447
3	Possible evolutionary origins of cognitive brain lateralization. Brain Research Reviews, 1999, 30, 164-175.	9.0	405
4	The genome of the platyfish, Xiphophorus maculatus, provides insights into evolutionary adaptation and several complex traits. Nature Genetics, 2013, 45, 567-572.	21.4	251
5	Do fish count? Spontaneous discrimination of quantity in female mosquitofish. Animal Cognition, 2008, 11, 495-503.	1.8	250
6	Population lateralisation and social behaviour: A study with 16 species of fish. Laterality, 2000, 5, 269-284.	1.0	243
7	Modularity and spatial reorientation in a simple mind: encoding of geometric and nongeometric properties of a spatial environment by fish. Cognition, 2002, 85, B51-B59.	2.2	221
8	Lateralisation of predator avoidance responses in three species of toads. Laterality, 2002, 7, 163-183.	1.0	204
9	Roots of brain specializations: preferential left-eye use during mirror-image inspection in six species of teleost fish. Behavioural Brain Research, 1999, 106, 175-180.	2.2	178
10	Lateralization of predator-evasion response in a teleost fish (Girardinus falcatus). Neuropsychologia, 1995, 33, 1637-1646.	1.6	176
11	Lateralized agonistic responses and hindlimb use in toads. Animal Behaviour, 1998, 56, 875-881.	1.9	173
12	Insemination efficiency of two alternative male mating tactics in the guppyPoecilia reticulata. Proceedings of the Royal Society B: Biological Sciences, 1999, 266, 1887-1891.	2.6	163
13	Female mate choice, male-male competition and parental care in the river bullhead, Cottus gobio L. (Pisces, Cottidae). Animal Behaviour, 1988, 36, 1352-1360.	1.9	159
14	Modularity as a fish (Xenotoca eiseni) views it: Conjoining geometric and nongeometric information for spatial reorientation Journal of Experimental Psychology, 2003, 29, 199-210.	1.7	158
15	Evidence for Two Numerical Systems That Are Similar in Humans and Guppies. PLoS ONE, 2012, 7, e31923.	2.5	157
16	Number versus continuous quantity in numerosity judgments by fish. Cognition, 2011, 119, 281-287.	2.2	151
17	Laterality in detour behaviour: interspecific variation in poeciliid fish. Animal Behaviour, 1997, 54, 1273-1281.	1.9	150

18 Right-pawedness in toads. Nature, 1996, 379, 408-408.

27.8 148

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19	Female mate choice in a mating system dominated by male sexual coercion. Behavioral Ecology, 2001, 12, 59-64.	2.2	145
20	Does brain asymmetry allow efficient performance of simultaneous tasks?. Animal Behaviour, 2006, 72, 523-529.	1.9	144
21	CRYPTIC FEMALE PREFERENCE FOR COLORFUL MALES IN GUPPIES. Evolution; International Journal of Organic Evolution, 2004, 58, 665-669.	2.3	141
22	Female aggregation and male competition reduce costs of sexual harassment in the mosquitofish Gambusia holbrooki. Animal Behaviour, 2003, 65, 1161-1167.	1.9	136
23	Lateralization of detour behaviour in poeciliid fish: The effect of species, gender and sexual motivation. Behavioural Brain Research, 1998, 91, 157-164.	2.2	133
24	Armaments and ornaments: an evolutionary explanation of traits of dual utility. Biological Journal of the Linnean Society, 1996, 58, 385-399.	1.6	132
25	Males whose nests contain eggs are preferred by female Cottus gobio L. (Pisces, Cottidae). Animal Behaviour, 1986, 34, 1580-1582.	1.9	129
26	Use of Number by Fish. PLoS ONE, 2009, 4, e4786.	2.5	123
27	Lateralization of response to social stimuli in fishes: A comparison between different methods and species. Physiology and Behavior, 2001, 74, 237-244.	2.1	122
28	Salinity mediates the competitive interactions between invasive mosquitofish and an endangered fish. Oecologia, 2008, 155, 205-213.	2.0	119
29	Quantity discrimination in female mosquitofish. Animal Cognition, 2006, 10, 63-70.	1.8	117
30	Heritability of lateralization in fish: concordance of right–left asymmetry between parents and offspring. Neuropsychologia, 2000, 38, 907-912.	1.6	115
31	What causes lateralization of detour behavior in fish? evidence for asymmetries in eye use. Behavioural Brain Research, 1999, 103, 229-234.	2.2	113
32	Mosquitofish display differential left- and right-eye use during mirror image scrutiny and predator inspection responses. Animal Behaviour, 2001, 61, 305-310.	1.9	109
33	Sire attractiveness influences offspring performance in guppies. Proceedings of the Royal Society B: Biological Sciences, 2004, 271, 2035-2042.	2.6	108
34	Male competition and female choice in Padogobius martensi (Pisces, Gobiidae). Animal Behaviour, 1989, 38, 406-413.	1.9	107
35	Discrimination reversal learning reveals greater female behavioural flexibility in guppies. Biology Letters, 2014, 10, 20140206.	2.3	104
36	Sexual selection for small size in male mosquitofish (Gambusia holbrooki). Proceedings of the Royal Society B: Biological Sciences, 1997, 264, 1125-1129.	2.6	103

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37	Spontaneous versus trained numerical abilities. A comparison between the two main tools to study numerical competence in non-human animals. Journal of Neuroscience Methods, 2014, 234, 82-91.	2.5	102
38	How fish do geometry in large and in small spaces. Animal Cognition, 2006, 10, 47-54.	1.8	100
39	Male competition, female mate choice and sexual size dimorphism in poeciliid fishes. Marine and Freshwater Behaviour and Physiology, 1993, 23, 257-286.	0.9	94
40	Early differences in epithalamic left–right asymmetry influence lateralization and personality of adult zebrafish. Behavioural Brain Research, 2010, 206, 208-215.	2.2	92
41	The cost of parental care and egg cannibalism in the river bullhead, Cottus gobio L. (Pisces, Cottidae). Behavioral Ecology and Sociobiology, 1993, 32, 229.	1.4	91
42	Enhanced schooling performance in lateralized fishes. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 1677-1681.	2.6	89
43	Frogs and toads in front of a mirror: lateralisation of response to social stimuli in tadpoles of five anuran species. Behavioural Brain Research, 2002, 134, 417-424.	2.2	86
44	Animals' use of landmarks and metric information to reorient: effects of the size of the experimental space. Cognition, 2005, 97, 121-133.	2.2	85
45	Spontaneous number representation in mosquitofish. Cognition, 2009, 112, 343-348.	2.2	85
46	Sex differences in spatial abilities and cognitive flexibility in the guppy. Animal Behaviour, 2017, 123, 53-60.	1.9	82
47	Detour tests reveal task- and stimulus-specific behavioural lateralization in mosquitofish (Gambusia) Tj ETQq1 1).784314 2.2	rg₿Ţ /Overlo
48	Male phenotype predicts insemination success in guppies. Proceedings of the Royal Society B: Biological Sciences, 2002, 269, 1325-1330.	2.6	81
49	How ancient is brain lateralization?. , 2002, , 9-69.		81
50	Ontogeny of Numerical Abilities in Fish. PLoS ONE, 2010, 5, e15516.	2.5	81
51	Male sexual harassment and female schooling behaviour in the eastern mosquitofish. Animal Behaviour, 2005, 70, 463-471.	1.9	79
52	Large Number Discrimination by Mosquitofish. PLoS ONE, 2010, 5, e15232.	2.5	79
53	Individual differences in cognition among teleost fishes. Behavioural Processes, 2017, 141, 184-195.	1.1	79
54	Consistency among different tasks of left–right asymmetries in lines of fish originally selected for opposite direction of lateralization in a detour task. Neuropsychologia, 2001, 39, 1077-1085.	1.6	77

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55	Lateralized fish perform better than nonlateralized fish in spatial reorientation tasks. Behavioural Brain Research, 2005, 163, 122-127.	2.2	77
56	Copulation duration, insemination efficiency and male attractiveness in guppies. Animal Behaviour, 2007, 74, 321-328.	1.9	77
57	Guppies discriminate between two quantities of food items but prioritize item size over total amount. Animal Behaviour, 2015, 107, 183-191.	1.9	77
58	Male Size and Female Mate Choice in the Eastern Mosquitofish (Gambusia holbrooki: Poeciliidae). Copeia, 1991, 1991, 730.	1.3	75
59	Lateralization of aggression in fish. Behavioural Brain Research, 2003, 141, 131-136.	2.2	71
60	Understanding the origin of number sense: a review of fish studies. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20160511.	4.0	71
61	Extensive training extends numerical abilities of guppies. Animal Cognition, 2014, 17, 1413-1419.	1.8	69
62	Development and testing of a rapid method for measuring shoal size discrimination. Animal Cognition, 2017, 20, 149-157.	1.8	69
63	The adaptive bases of female sexual behavior: reports from a workshop. Behavioral Ecology, 1993, 4, 184-187.	2.2	68
64	Lateralized female topminnows can forage and attend to a harassing male simultaneously. Behavioral Ecology, 2006, 17, 358-363.	2.2	65
65	Recognition of partly occluded objects by fish. Animal Cognition, 2007, 11, 161-166.	1.8	65
66	The costs of hemispheric specialization in a fish. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 4399-4407.	2.6	65
67	Inter-Specific Differences in Numerical Abilities Among Teleost Fish. Frontiers in Psychology, 2012, 3, 483.	2.1	65
68	Male Mate Preferences in the Mosquitofish <i>Gambusia holbrooki</i> . Ethology, 1989, 83, 335-343.	1.1	64
69	Laterality and cooperation: mosquitofish move closer to a predator when the companion is on their left side. Animal Behaviour, 1999, 57, 1145-1149.	1.9	58
70	Temporal pattern of social aggregation in tadpoles and its influence on the measurement of lateralised response to social stimuli. Physiology and Behavior, 2003, 78, 337-341.	2.1	57
71	Honeybees use absolute rather than relative numerosity in number discrimination. Biology Letters, 2019, 15, 20190138.	2.3	55
72	Male and female guppies differ in speed but not in accuracy in visual discrimination learning. Animal Cognition, 2016, 19, 733-744.	1.8	54

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73	Do Fish Perceive Illusory Motion?. Scientific Reports, 2014, 4, 6443.	3.3	53
74	Numerical abilities in fish: A methodological review. Behavioural Processes, 2017, 141, 161-171.	1.1	53
75	Lateralization of displays during aggressive and courtship behaviour in the Siamese fighting fish (Betta splendens). Physiology and Behavior, 1996, 60, 249-252.	2.1	52
76	Laterality enhances numerical skills in the guppy, Poecilia reticulata. Frontiers in Behavioral Neuroscience, 2015, 9, 285.	2.0	52
77	Sexual Harassment Influences Group Choice in Female Mosquitofish. Ethology, 2006, 112, 592-598.	1.1	51
78	Development and application of a new method to investigate cognition in newborn guppies. Behavioural Brain Research, 2012, 233, 443-449.	2.2	50
79	Subliminally Perceived Odours Modulate Female Intrasexual Competition: An Eye Movement Study. PLoS ONE, 2012, 7, e30645.	2.5	48
80	Cryptic female preference for colorful males in guppies. Evolution; International Journal of Organic Evolution, 2004, 58, 665-9.	2.3	46
81	Perception of Subjective Contours in Fish. Perception, 2009, 38, 579-590.	1.2	45
82	Fish perform like mammals and birds in inhibitory motor control tasks. Scientific Reports, 2017, 7, 13144.	3.3	45
83	Sex Differences in Discrimination of Shoal Size in the Guppy (<i>Poecilia reticulata</i>). Ethology, 2016, 122, 481-491.	1.1	44
84	Use of ordinal information by fish. Scientific Reports, 2015, 5, 15497.	3.3	42
85	Numerical acuity of fish is improved in the presence of moving targets, but only in the subitizing range. Animal Cognition, 2014, 17, 307-316.	1.8	41
86	Lateral asymmetries during escape behavior in a species of teleost fish (Jenynsia lineata). Physiology and Behavior, 1997, 61, 31-35.	2.1	40
87	Population lateralisation and social behaviour: A study with 16 species of fish. Laterality, 2000, 5, 269-284.	1.0	40
88	A new training procedure for studying discrimination learning in fish. Behavioural Brain Research, 2012, 230, 343-348.	2.2	39
89	Quantitative abilities in a reptile (<i>Podarcis sicula</i>). Biology Letters, 2017, 13, 20160899.	2.3	37
90	Sexual Competition, Coercive Mating and Mate Assessment in the One-Sided Livebearer, Jenynsia multidentata: Are They Predictive of Sexual Dimorphism?. Ethology, 2000, 106, 961-978.	1.1	36

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91	Further evidence for mirror-reversed laterality in lines of fish selected for leftward or rightward turning when facing a predator model. Behavioural Brain Research, 2005, 156, 165-171.	2.2	36
92	Sex differences in discrimination reversal learning in the guppy. Animal Cognition, 2017, 20, 1081-1091.	1.8	36
93	Processing of visual hierarchical stimuli by fish (Xenotoca eiseni). Behavioural Brain Research, 2010, 207, 51-60.	2.2	35
94	Relative versus absolute numerical representation in fish: Can guppies represent "fourness�. Animal Cognition, 2015, 18, 1007-1017.	1.8	32
95	Lateralization of ventral fins use during object exploration in the blue gourami (Trichogaster) Tj ETQq1 1 0.78431	4 rgBT /	Overlock 10 Ti
96	Lines of Danio rerio selected for opposite behavioural lateralization show differences in anatomical left–right asymmetries. Behavioural Brain Research, 2009, 197, 157-165.	2.2	31
97	Variation of female preference for male coloration in the eastern mosquitofish Gambusia holbrooki. Behavior Genetics, 2000, 30, 207-212.	2.1	30
98	Invasion success despite reduction of genetic diversity in the European populations of eastern mosquitofish (<i>Gambusia holbrooki</i>). Italian Journal of Zoology, 2006, 73, 67-73.	0.6	30
99	Sexual selection constrained by internal fertilization in the livebearing fishXenotoca eiseni. Animal Behaviour, 1997, 54, 1347-1355.	1.9	28
100	Artificial selection on laterality in the teleost fish Girardinus falcatus. Behavioural Brain Research, 2007, 178, 29-38.	2.2	28
101	Do domestic dogs (Canis lupus familiaris) perceive the Delboeuf illusion?. Animal Cognition, 2017, 20, 427-434.	1.8	28
102	Experimental setting affects the performance of guppies in a numerical discrimination task. Animal Cognition, 2017, 20, 187-198.	1.8	28
103	Prior exposure to a predator influences lateralization of cooperative predator inspection in the guppy, <i>Poecilia reticulata</i> . Italian Journal of Zoology, 2000, 67, 175-178.	0.6	27
104	Rotational Swimming Preferences in Mosquitofish: Evidence for Brain Lateralization?. Physiology and Behavior, 1997, 62, 1405-1407.	2.1	26
105	Prenatal light exposure affects development of behavioural lateralization in a livebearing fish. Behavioural Processes, 2012, 91, 115-118.	1.1	26
106	Rotational Bias in Mosquitofish (Gambusia holbrooki): The Role of Laterality and Sun-compass Navigation. Laterality, 1996, 1, 161-175.	1.0	25
107	Ontogeny of the capacity to compare discrete quantities in fish. Developmental Psychobiology, 2014, 56, 529-536.	1.6	25
108	Non-visual numerical discrimination in a blind cavefish (<i>Phreatichthys andruzzii</i>). Journal of Experimental Biology, 2014, 217, 1902-1909.	1.7	25

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109	Complex maze learning by fish. Animal Behaviour, 2017, 125, 69-75.	1.9	25
110	Measuring recognition memory in zebrafish larvae: issues and limitations. PeerJ, 2020, 8, e8890.	2.0	24
111	Cuppies learn faster to discriminate between red and yellow than between two shapes. Ethology, 2019, 125, 82-91.	1.1	23
112	Determinants of size in male eastern mosquitofish (Gambusia holbrooki):Inheritance and plasticity of a sexual selected character. Bollettino Di Zoologia, 1993, 60, 317-322.	0.3	22
113	Collective enhancement of numerical acuity by meritocratic leadership in fish. Scientific Reports, 2014, 4, 4560.	3.3	21
114	Rotational Bias in Mosquitofish (<i>Gambusia holbrooki</i>): The Role of Laterality and Sun-compass Navigation. Laterality, 1996, 1, 161-175.	1.0	20
115	Emotional responsiveness in fish from lines artificially selected for a high or low degree of laterality. Physiology and Behavior, 2007, 92, 764-772.	2.1	20
116	Quantity discrimination by treefrogs. Animal Behaviour, 2018, 139, 61-69.	1.9	20
117	Sensory differences mediate species variation in detour task performance. Animal Behaviour, 2019, 155, 153-162.	1.9	20
118	Male body size and maleâ€male competition: Interspecific variation in poeciliid fishes. Italian Journal of Zoology, 1996, 63, 365-369.	0.6	19
119	Male and female guppies differ in problem-solving abilities. Environmental Epigenetics, 2020, 66, 83-90.	1.8	19
120	Innate responses to male sexual harassment in female mosquitofish. Behavioral Ecology and Sociobiology, 2008, 63, 53-62.	1.4	17
121	The devil is in the detail: Zebrafish learn to discriminate visual stimuli only if salient. Behavioural Processes, 2020, 179, 104215.	1.1	16
122	Brightness illusion in the guppy (Poecilia reticulata) Journal of Comparative Psychology (Washington, D C: 1983), 2016, 130, 55-61.	0.5	15
123	The effect of experience and olfactory cue in an inhibitory control task in guppies, Poecilia reticulata. Animal Behaviour, 2019, 151, 1-7.	1.9	15
124	Alarm cue-mediated response and learning in zebrafish larvae. Behavioural Brain Research, 2020, 380, 112446.	2.2	15
125	Stimulus characteristics, learning bias and visual discrimination in zebrafish (Danio rerio). Behavioural Processes, 2021, 192, 104499.	1.1	15
126	Individual-level consistency of different laterality measures in the goldbelly topminnow Behavioral Neuroscience, 2012, 126, 845-849.	1.2	13

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127	Guppies show sex and individual differences in the ability to inhibit behaviour. Animal Cognition, 2020, 23, 535-543.	1.8	13
128	Ratio dependence in small number discrimination is affected by the experimental procedure. Frontiers in Psychology, 2015, 6, 1649.	2.1	12
129	Factors affecting the measure of inhibitory control in a fish (Poecilia reticulata). Behavioural Processes, 2018, 157, 11-17.	1.1	12
130	Ontogeny and personality affect inhibitory control in guppies, Poecilia reticulata. Animal Behaviour, 2021, 180, 111-121.	1.9	12
131	Escape behaviour elicited by a visual stimulus. A comparison between lateralised and non-lateralised female topminnows. Laterality, 2009, 14, 300-314.	1.0	11
132	Quantity discrimination in parental fish: female convict cichlid discriminate fry shoals of different sizes. Animal Cognition, 2016, 19, 959-964.	1.8	11
133	Exploratory behaviour covaries with preference for unfamiliar males in female guppies. Animal Behaviour, 2019, 155, 217-224.	1.9	11
134	The role of visual and olfactory cues in social decisions of guppies and zebrafish. Animal Behaviour, 2021, 180, 209-217.	1.9	11
135	Early visual experience influences behavioral lateralization in the guppy. Animal Cognition, 2016, 19, 949-958.	1.8	10
136	The ontogeny of continuous quantity discrimination in zebrafish larvae (Danio rerio). Animal Cognition, 2020, 23, 731-739.	1.8	10
137	Guppies in the puzzle box: innovative problem-solving by a teleost fish. Behavioral Ecology and Sociobiology, 2021, 75, 1.	1.4	9
138	Isolation and Genetic Characterization of Mother-of-Snow-White, a Maternal Effect Allele Affecting Laterality and Lateralized Behaviors in Zebrafish. PLoS ONE, 2011, 6, e25972.	2.5	9
139	Size discrimination in adult zebrafish (Danio rerio): Normative data and individual variation. Scientific Reports, 2020, 10, 1164.	3.3	7
140	Automated Operant Conditioning Devices for Fish. Do They Work?. Animals, 2021, 11, 1397.	2.3	7
141	Environmental enrichment decreases anxietyâ€like behavior in zebrafish larvae. Developmental Psychobiology, 2022, 64, e22255.	1.6	7
142	Computer Simulation Suggests that the Spatial Distribution of Males Influences Female Visiting Behaviour in the River Bullhead. Ethology, 1997, 103, 999-1014.	1.1	6
143	At the Root of Math. Advances in Mathematical Cognition and Learning, 2015, 1, 3-33.	0.5	6

144 Number Versus Continuous Quantities in Lower Vertebrates. , 2016, , 149-174.

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145	Global/local processing of hierarchical visual stimuli in a conflict–choice task by capuchin monkeys (Sapajus spp.). Animal Cognition, 2017, 20, 347-357.	1.8	6
146	Vegetation cover induces developmental plasticity of lateralization in tadpoles. Environmental Epigenetics, 2020, 66, 393-399.	1.8	6
147	Continuous versus discrete quantity discrimination in dune snail (Mollusca: Gastropoda) seeking thermal refuges. Scientific Reports, 2021, 11, 3757.	3.3	5
148	Susceptibility to Size Visual Illusions in a Non-Primate Mammal (Equus caballus). Animals, 2020, 10, 1673.	2.3	4
149	Poor numerical performance of guppies tested in a Skinner box. Scientific Reports, 2020, 10, 16724.	3.3	4
150	Zebrafish excel in number discrimination under an operant conditioning paradigm. Animal Cognition, 2022, 25, 917-933.	1.8	4
151	The contribution of fish studies to the "number sense―debate. Behavioral and Brain Sciences, 2017, 40, e165.	0.7	2
152	Guppies (<i>Poecilia reticulata</i>) are deceived by visual illusions during obstacle negotiation. Biology Letters, 2022, 18, 20210548.	2.3	2
153	Learning and visual discrimination in newly hatched zebrafish. IScience, 2022, 25, 104283.	4.1	2
154	Extra food provisioning does not affect behavioral lateralization in nestling lesser kestrels. Environmental Epigenetics, 2023, 69, 66-75.	1.8	0