Steffen Harzsch

List of Publications by Year
in descending order

124 papers	5,012 citations	87888 38 h-index	110387 64 g-index
129 all docs	129 docs citations	129 times ranked	2497 citing authors

#	Article	IF	Citations
1	A Systematic Nomenclature for the Insect Brain. Neuron, 2014, 81, 755-765.	8.1	564
2	Invertebrate neurophylogeny: suggested terms and definitions for a neuroanatomical glossary. Frontiers in Zoology, 2010, 7, 29.	2.0	281
3	Neurophylogeny: Architecture of the nervous system and a fresh view on arthropod phyologeny. Integrative and Comparative Biology, 2006, 46, 162-194.	2.0	155
4	From The Cover: The brain of the Remipedia (Crustacea) and an alternative hypothesis on their phylogenetic relationships. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 3868-3873.	7.1	135
5	From variable to constant cell numbers: cellular characteristics of the arthropod nervous system argue against a sister-group relationship of Chelicerata and ?Myriapoda? but favour the Mandibulata concept. Development Genes and Evolution, 2005, 215, 53-68.	0.9	126
6	From Embryo to Adult: Persistent Neurogenesis and Apoptotic Cell Death Shape the Lobster Deutocerebrum. Journal of Neuroscience, 1999, 19, 3472-3485.	3.6	123
7	Potential and limitations of Xâ€Ray microâ€computed tomography in arthropod neuroanatomy: A methodological and comparative survey. Journal of Comparative Neurology, 2015, 523, 1281-1295.	1.6	113
8	Brain architecture in the terrestrial hermit crab Coenobita clypeatus(Anomura, Coenobitidae), a crustacean with a good aerial sense of smell. BMC Neuroscience, 2008, 9, 58.	1.9	103
9	Comparative analysis of deutocerebral neuropils in Chilopoda (Myriapoda): implications for the evolution of the arthropod olfactory system and support for the Mandibulata concept. BMC Neuroscience, 2012, 13, 1-17.	1.9	102
10	Phylogenetic comparison of serotonin-immunoreactive neurons in representatives of the Chilopoda, Diplopoda, and Chelicerata: Implications for arthropod relationships. Journal of Morphology, 2004, 259, 198-213.	1.2	99
11	Ontogeny of the Marmorkrebs (marbled crayfish): a parthenogenetic crayfish with unknown origin and phylogenetic position. Journal of Experimental Zoology Part A, Comparative Experimental Biology, 2005, 303A, 393-405.	1.3	97
12	The phylogenetic significance of crustacean optic neuropils and chiasmata: A re-examination. Journal of Comparative Neurology, 2002, 453, 10-21.	1.6	95
13	Neurogenesis in the thoracic neuromeres of two crustaceans with different types of metamorphic development. Journal of Experimental Biology, 1998, 201, 2465-2479.	1.7	90
14	Ontogeny of the ventral nerve cord in malacostracan crustaceans: a common plan for neuronal development in Crustacea, Hexapoda and other Arthropoda?. Arthropod Structure and Development, 2003, 32, 17-37.	1.4	88
15	An immunohistochemical study of structure and development of the nervous system in the brine shrimp Artemia salina Linnaeus, 1758 (Branchiopoda, Anostraca) with remarks on the evolution of the arthropod brain. Arthropod Structure and Development, 2002, 30, 251-270.	1.4	79
16	Early embryonic development of the central nervous system in the Australian crayfish and the Marbled crayfish (Marmorkrebs). Development Genes and Evolution, 2006, 216, 209-223.	0.9	75
17	A new look at embryonic development of the visual system in decapod crustaceans: Neuropil formation, neurogenesis, and apoptotic cell death. , 1999, 39, 294-306.		74
18	Neurogenesis in the developing crab brain: Postembryonic generation of neurons persists beyond metamorphosis. , 1996, 29, 384-398.		71

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19	Serotonin-immunoreactive neurons in the ventral nerve cord of Crustacea: a character to study aspects of arthropod phylogeny. Arthropod Structure and Development, 2000, 29, 307-322.	1.4	71
20	Neurogenesis in the developing visual system of the branchiopod crustacean Triops longicaudatus (LeConte, 1846): corresponding patterns of compound-eye formation in Crustacea and Insecta?. Development Genes and Evolution, 2001, 211, 37-43.	0.9	71
21	Evolution of arthropod visual systems: Development of the eyes and central visual pathways in the horseshoe crab Limulus polyphemus Linnaeus, 1758 (Chelicerata, Xiphosura). Developmental Dynamics, 2006, 235, 2641-2655.	1.8	71
22	A brain atlas of Godzilliognomus frondosus Yager, 1989 (Remipedia, Godzilliidae) and comparison with the brain of Speleonectes tulumensis Yager, 1987 (Remipedia, Speleonectidae): implications for arthropod relationships. Arthropod Structure and Development, 2005, 34, 343-378.	1.4	70
23	Immunocytochemical detection of acetylated alpha-tubulin and Drosophila synapsin in the embryonic crustacean nervous system. International Journal of Developmental Biology, 1997, 41, 477-84.	0.6	68
24	A review of the biology and ecology of the Robber Crab, Birgus latro (Linnaeus, 1767) (Anomura:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 5	0.9	67
25	A new look at the ventral nerve centre of Sagitta: implications for the phylogenetic position of Chaetognatha (arrow worms) and the evolution of the bilaterian nervous system. Frontiers in Zoology, 2007, 4, 14.	2.0	66
26	Comparative Analysis of Neurogenesis in the Central Olfactory Pathway of Adult Decapod Crustaceans by In Vivo BrdU Labeling. Biological Bulletin, 1999, 196, 127-136.	1.8	64
27	Evolution of eye development in arthropods: Phylogenetic aspects. Arthropod Structure and Development, 2006, 35, 319-340.	1.4	60
28	Comparative brain architecture of the European shore crab Carcinus maenas (Brachyura) and the common hermit crab Pagurus bernhardus (Anomura) with notes on other marine hermit crabs. Cell and Tissue Research, 2012, 348, 47-69.	2.9	57
29	Crustacean olfactory systems: A comparative review and a crustacean perspective on olfaction in insects. Progress in Neurobiology, 2018, 161, 23-60.	5.7	56
30	Brain architecture of the largest living land arthropod, the Giant Robber Crab Birgus latro (Crustacea, Anomura, Coenobitidae): evidence for a prominent central olfactory pathway?. Frontiers in Zoology, 2010, 7, 25.	2.0	55
31	Neurogenesis in the crustacean ventral nerve cord: homology of neuronal stem cells in Malacostraca and Branchiopoda?. Evolution & Development, 2001, 3, 154-169.	2.0	54
32	Neuronal organization of the hemiellipsoid body of the land hermit crab, <i>Coenobita clypeatus</i>: Correspondence with the mushroom body ground pattern. Journal of Comparative Neurology, 2012, 520, 2824-2846.	1.6	52
33	Organization of Deutocerebral Neuropils and Olfactory Behavior in the Centipede Scutigera coleoptrata (Linnaeus, 1758) (Myriapoda: Chilopoda). Chemical Senses, 2011, 36, 43-61.	2.0	50
34	Immunolocalisation of crustacean-SIFamide in the median brain and eyestalk neuropils of the marbled crayfish. Cell and Tissue Research, 2007, 330, 331-344.	2.9	49
35	Immunohistochemical localization of neurotransmitters in the nervous system of larval Limulus polyphemus (Chelicerata, Xiphosura): evidence for a conserved protocerebral architecture in Euarthropoda. Arthropod Structure and Development, 2005, 34, 327-342.	1.4	46
36	Neurogenesis in the central olfactory pathway of adult decapod crustaceans: development of the neurogenic niche in the brains of procambarid crayfish. Neural Development, 2012, 7, 1.	2.4	44

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37	Immunolocalization of serotonin in Onychophora argues against segmental ganglia being an ancestral feature of arthropods. BMC Evolutionary Biology, 2007, 7, 118.	3.2	42
38	Development of pigment-dispersing hormone-immunoreactive neurons in the American lobster: homology to the insect circadian pacemaker system?. Cell and Tissue Research, 2009, 335, 417-429.	2.9	42
39	Neurogenesis in larval stages of the spider crab Hyas araneus (Decapoda, Brachyura): proliferation of neuroblasts in the ventral nerve cord. Roux's Archives of Developmental Biology, 1994, 204, 93-100.	1.2	39
40	A developmental study of serotonin-immunoreactive neurons in the larval central nervous system of the spider crabHyas araneus (Decapoda, Brachyura). Invertebrate Neuroscience, 1995, 1, 53-65.	1.8	39
41	A new look at an old visual system: structure and development of the compound eyes and optic ganglia of the brine shrimpartemia salina linnaeus, 1758 (branchiopoda, anostraca). Journal of Neurobiology, 2002, 52, 117-132.	3.6	38
42	Mechanisms of eye development and evolution of the arthropod visual system: The lateral eyes of myriapoda are not modified insect ommatidia. Organisms Diversity and Evolution, 2007, 7, 20-32.	1.6	38
43	The synganglion of the jumping spider Marpissa muscosa (Arachnida: Salticidae): Insights from histology, immunohistochemistry and microCT analysis. Arthropod Structure and Development, 2017, 46, 156-170.	1.4	38
44	Evolution of identified arthropod neurons: the serotonergic system in relation to engrailed-expressing cells in the embryonic ventral nerve cord of the american lobster homarus americanus milne edwards, 1873 (malacostraca, pleocyemata, homarida). Developmental Biology, 2003, 258, 44-56.	2.0	36
45	Distribution of serotonin in the trunk of <i>Metaperipatus blainvillei</i> (Onychophora,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 4 Comparative Neurology, 2008, 507, 1196-1208.	1.6	36
46	The tritocerebrum of Euarthropoda: a "non-drosophilocentric" perspective. Evolution & Development, 2004, 6, 303-309.	2.0	34
47	Transition from marine to terrestrial ecologies: Changes in olfactory and tritocerebral neuropils in land-living isopods. Arthropod Structure and Development, 2011, 40, 244-257.	1.4	34
48	Comparative analyses of olfactory systems in terrestrial crabs (Brachyura): evidence for aerial olfaction?. PeerJ, 2015, 3, e1433.	2.0	34
49	Embryonic development of the histaminergic system in the ventral nerve cord of the Marbled Crayfish (Marmorkrebs). Tissue and Cell, 2008, 40, 113-126.	2.2	33
50	The Malacostraca (Crustacea) from a neurophylogenetic perspective: New insights from brain architecture in Nebalia herbstii Leach, 1814 (Leptostraca, Phyllocarida). Zoologischer Anzeiger, 2013, 252, 319-336.	0.9	33
51	On the morphology of the central nervous system in larval stages ofCarcinus maenas L. (Decapoda,) Tj ETQq1 1 0.784314 rgBT /Overlo	0.2	30
52	Architectural Principles and Evolution of the Arthropod Central Nervous System. , 2013, , 299-342.		29
53	Obesity Impairs Mobility and Adult Hippocampal Neurogenesis. Journal of Experimental Neuroscience, 2019, 13, 117906951988358.	2.3	28
54	Evolution of the arthropod neuromuscular system. 1. Arrangement of muscles and innervation in the walking legs of a scorpion: Vaejovis spinigerus (Wood, 1863) Vaejovidae, Scorpiones, Arachnida. Arthropod Structure and Development, 2002, 31, 185-202.	1.4	27

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55	Serotonin-immunoreactive neurons in the ventral nerve cord of Remipedia (Crustacea): support for a sister group relationship of Remipedia and Hexapoda?. BMC Evolutionary Biology, 2013, 13, 119.	3.2	27
56	An atlas of larval organogenesis in the European shore crab Carcinus maenas L. (Decapoda, Brachyura,) Tj ETQq0 0 0 rgBT /Overlock 10 T	2.0	26
57	The Engrailed-expressing secondary head spots in the embryonic crayfish brain: examples for a group of homologous neurons in Crustacea and Hexapoda?. Development Genes and Evolution, 2007, 217, 791-799.	0.9	25
58	Immunolocalization of histamine in the optic neuropils of Scutigera coleoptrata (Myriapoda:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 2015, 594, 111-116.	2.1	25
59	Visual pathways in the brain of the jumping spider <scp><i>Marpissa muscosa</i></scp>. Journal of Comparative Neurology, 2020, 528, 1883-1902.	1.6	25
60	New insights into an ancient insect nose: The olfactory pathway of Lepismachilis y-signata (Archaeognatha: Machilidae). Arthropod Structure and Development, 2011, 40, 317-333.	1.4	24
61	Brain anatomy of the marine isopod Saduria entomon Linnaeus, 1758 (Valvifera, Isopoda) with special emphasis on the olfactory pathway. Frontiers in Neuroanatomy, 2013, 7, 32.	1.7	24
62	Muscle precursor cells in the developing limbs of two isopods (Crustacea, Peracarida): an immunohistochemical study using a novel monoclonal antibody against myosin heavy chain. Development Genes and Evolution, 2008, 218, 253-265.	0.9	23
63	Engrailed-like immunoreactivity in the embryonic ventral nerve cord of the Marbled Crayfish (Marmorkrebs). Invertebrate Neuroscience, 2008, 8, 177-197.	1.8	22
64	Serotonin immunoreactive interneurons in the brain of the Remipedia: new insights into the phylogenetic affinities of an enigmatic crustacean taxon. BMC Evolutionary Biology, 2012, 12, 168.	3.2	22
65	Neuroanatomy of the optic ganglia and central brain of the water flea Daphnia magna (Crustacea,) Tj ETQq1 1 0.784314 rgBT /Overlock	2.9	22
66	Development of Neurons Exhibiting Fmrfamide-Related Immunoreactivity in the Central Nervous System of Larvae of the Spider Crab Hyas araneus L. (Decapoda: Majidae). Journal of Crustacean Biology, 1996, 16, 10.	0.8	20
67	Evolution of the arthropod neuromuscular system. 2. Inhibitory innervation of the walking legs of a scorpion: Vaejovis spinigerus (Wood, 1863), Vaejovidae, Scorpiones, Arachnida. Arthropod Structure and Development, 2002, 31, 203-215.	1.4	20
68	Neuropeptide complexity in the crustacean central olfactory pathway: immunolocalization of A-type allatostatins and RFamide-like peptides in the brain of a terrestrial hermit crab. Molecular Brain, 2012, 5, 29.	2.6	20
69	Unmasking intraspecific variation in offspring responses to multiple environmental drivers. Marine Biology, 2019, 166, 1.	1.5	20
70	Giant Robber Crabs Monitored from Space: GPS-Based Telemetric Studies on Christmas Island (Indian) Tj ETQq0 0 0 rgBT /Overlock 10 T	2.5	20
71	The Neurobiology of Ocean Change â€“ insights from decapod crustaceans. Zoology, 2021, 144, 125887.	1.2	19
72	A developmental study of serotonin-immunoreactive neurons in the embryonic brain of the Marbled Crayfish and the Migratory Locust: Evidence for a homologous protocerebral group of neurons. Arthropod Structure and Development, 2013, 42, 507-520.	1.4	18

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73	Physiological basis of interactive responses to temperature and salinity in coastal marine invertebrate: Implications for responses to warming. Ecology and Evolution, 2021, 11, 7042-7056.	1.9	18
74	Neurobiologie und Evolutionsforschung: â€œNeurophylogenieâ€•und die Stammesgeschichte der Euarthropoda. E-Neuroforum, 2002, 8, 267-273.	0.1	16
75	Fine structure of the ventral nerve centre and interspecific identification of individual neurons in the enigmatic Chaetognatha. Zoomorphology, 2009, 128, 53-73.	0.8	16
76	Immunohistochemical analysis and 3D reconstruction of the cephalic nervous system in Chaetognatha: insights into the evolution of an early bilaterian brain?. Invertebrate Biology, 2010, 129, 77-104.	0.9	16
77	Serotonin-immunoreactive neurons in scorpion pectine neuropils: similarities to insect and crustacean primary olfactory centres?. Zoology, 2012, 115, 151-159.	1.2	16
78	Central projections of antennular chemosensory and mechanosensory afferents in the brain of the terrestrial hermit crab (Coenobita clypeatus; Coenobitidae, Anomura). Frontiers in Neuroanatomy, 2015, 9, 94.	1.7	16
79	Brain architecture of the Pacific White Shrimp Penaeus vannamei Boone, 1931 (Malacostraca,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 2017, 369, 255-271.	2.9	16
80	Neuroanatomy of a hydrothermal vent shrimp provides insights into the evolution of crustacean integrative brain centers. ELife, 2019, 8, .	6.0	16
81	Myogenesis in the thoracic limbs of the American lobster. Arthropod Structure and Development, 2010, 39, 423-435.	1.4	15
82	Evolution of invertebrate nervous systems: the Chaetognatha as a case study. Acta Zoologica, 2010, 91, 35-43.	0.8	15
83	Development of the nervous system in hatchlings of Spadella cephaloptera (Chaetognatha), and implications for nervous system evolution in Bilateria. Development Growth and Differentiation, 2011, 53, 740-759.	1.5	15
84	The â€œamphiâ€•brains of amphipods: new insights from the neuroanatomy of Parhyale hawaiensis (Dana,) Tj ETQq0 0 0 rgBT /Overlock	2.0	15
85	Masters of communication: The brain of the banded cleaner shrimp Stenopus hispidus (Olivier, 1811) with an emphasis on sensory processing areas. Journal of Comparative Neurology, 2020, 528, 1561-1587.	1.6	15
86	From Stem Cell to Structure: Neurogenesis in the CNS of Decapod Crustaceans. , 2002, , 417-432.		14
87	A new look at embryonic development of the visual system in decapod crustaceans: neuropil formation, neurogenesis, and apoptotic cell death. Journal of Neurobiology, 1999, 39, 294-306.	3.6	14
88	An unusual case of a mutant lobster embryo with double brain and double ventral nerve cord. Arthropod Structure and Development, 2000, 29, 95-99.	1.4	12
89	4 The Chaetognatha : An anarchistic taxon between Protostomia and Deuterostomia. , 2014, , 49-78.		12
90	Exploring larval phenology as predictor for range expansion in an invasive species. Ecography, 2020, 43, 1423-1434.	4.5	12

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91	Methods to study organogenesis in decapod crustacean larvae. I. larval rearing, preparation, and fixation. Helgoland Marine Research, 2021, 75, .	1.3	10
92	On the sighted ancestry of blindness â€“ exceptionally preserved eyes of Mesozoic polychelidan lobsters. Zoological Letters, 2016, 2, 13.	1.3	9
93	ATP6AP2 over-expression causes morphological alterations in the hippocampus and in hippocampus-related behaviour. Brain Structure and Function, 2018, 223, 2287-2302.	2.3	9
94	Functional morphology of the primary olfactory centers in the brain of the hermit crab Coenobita clypeatus (Anomala, Coenobitidae). Cell and Tissue Research, 2020, 380, 449-467.	2.9	9
95	More than one way to smell ashore â€“ Evolution of the olfactory pathway in terrestrial malacostracan crustaceans. Arthropod Structure and Development, 2021, 60, 101022.	1.4	9
96	Neurogenesis in an Early Protostome Relative: Progenitor Cells in the Ventral Nerve Center of Chaetognath Hatchlings Are Arranged in a Highly Organized Geometrical Pattern. Journal of Experimental Zoology Part B: Molecular and Developmental Evolution, 2013, 320, 179-193.	1.3	8
97	Immunohistochemical and ultrastructural studies on ciliary sense organs of arrow worms (Chaetognatha). Zoomorphology, 2014, 133, 167-189.	0.8	8
98	Adult neurogenesis in the central olfactory pathway of dendrobranchiate and caridean shrimps: New insights into the evolution of the deutocerebral proliferative system in reptant decapods. Developmental Neurobiology, 2018, 78, 757-774.	3.0	8
99	Methods to study organogenesis in decapod crustacean larvae II: analysing cells and tissues. Helgoland Marine Research, 2021, 75, .	1.3	7
100	Genealogical relationships of mushroom bodies, hemiellipsoid bodies, and their afferent pathways in the brains of Pancrustacea: Recent progress and open questions. Arthropod Structure and Development, 2021, 65, 101100.	1.4	7
101	What nymphal morphology can tell us about parental investment â€“ a group of cockroach hatchlings in Baltic amber documented by a multi-method approach. Palaeontologia Electronica, 0, , .	0.9	7
102	The Neural and Behavioral Basis of Chemical Communication in Terrestrial Crustaceans. , 2010, , 149-173.		6
103	Heading which way? Y-maze chemical assays: not all crustaceans are alike. Helgoland Marine Research, 2015, 69, 305-311.	1.3	6
104	â€œCrustaceaâ€: Decapoda â€“ Astacida. , 2015, , 101-151.		6
105	Chaetognatha. , 2015, , 215-240.		5
106	Crustaceans in a changing world. Zoology, 2021, 146, 125921.	1.2	5
107	Histochemistry on vibratome sections of fish tissue: a comparison of fixation and embedding methods. Aquatic Biology, 2015, 23, 251-263.	1.4	5
108	Quantifying the portfolio of larval responses to salinity and temperature in a coastal-marine invertebrate: a cross population study along the European coast. Marine Biology, 2022, 169, .	1.5	5

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109	A possible role for the immune system in adult neurogenesis: new insights from an invertebrate model. Zoology, 2016, 119, 153-157.	1.2	4
110	Contrasting offspring responses to variation in salinity and temperature among populations of a coastal crab: A maladaptive ecological surprise?. Marine Ecology - Progress Series, 2021, 677, 51-65.	1.9	4
111	The NOVA project: maximizing beam time efficiency through synergistic analyses of SRÎ¼CT data. , 2017, , .		4
112	Arachnida (Excluding Scorpiones). , 2015, , 453-477.		3
113	Notes on the Foraging Strategies of the Giant Robber Crab (Anomala) on Christmas Island: Evidence for Active Predation on Red Crabs (Brachyura). Zoological Studies, 2016, 55, e6.	0.3	3
114	7. Chaetognatha. , 2018, , 163-282.		3
115	Development of the arthropod nervous system: variations on a common theme?. Arthropod Structure and Development, 2003, 32, 3-4.	1.4	2
116	Acetoin, a key odor for resource location in the giant robber crab, <i>Birgus latro</i>. Journal of Experimental Biology, 2019, 222, .	1.7	2
117	Immunolocalization of Neurotransmitters and Neuromodulators in the Developing Crayfish Brain. Methods in Molecular Biology, 2020, 2047, 271-291.	0.9	2
118	Xiphosura. , 2015, , 428-442.		2
119	Local olfactory interneurons provide the basis for neurochemical regionalization of olfactory glomeruli in crustaceans. Journal of Comparative Neurology, 2022, 530, 1399-1422.	1.6	2
120	Origin and evolution of arthropod visual systems. Arthropod Structure and Development, 2006, 35, 209-210.	1.4	1
121	Neurogenesis in the developing crab brain: Postembryonic generation of neurons persists beyond metamorphosis. Journal of Neurobiology, 1996, 29, 384-398.	3.6	1
122	A new look at embryonic development of the visual system in decapod crustaceans: Neuropil formation, neurogenesis, and apoptotic cell death. Journal of Neurobiology, 1999, 39, 294.	3.6	1
123	Remipedia. , 2015, , 522-528.		1
124	Exploring brain diversity in crustaceans: sensory systems of deep vent shrimps. Neuroforum, 2020, 26, 73-84.	0.3	0