SÃ©bastien VillÃ©ger

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3526768/publications.pdf

Version: 2024-02-01

99	12,132	61984	36028
papers	citations	43	97
		h-index	g-index

104	104	104	12029
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ranking the biases: The choice of OTUs vs. ASVs in 16S rRNA amplicon data analysis has stronger effects on diversity measures than rarefaction and OTU identity threshold. PLoS ONE, 2022, 17, e0264443.	2.5	49
2	Contemporary environment and historical legacy explain functional diversity of freshwater fishes in the world rivers. Global Ecology and Biogeography, 2022, 31, 700-713.	5.8	14
3	Biological trade-offs underpin coral reef ecosystem functioning. Nature Ecology and Evolution, 2022, 6, 701-708.	7.8	18
4	Similar trait structure and vulnerability in pelagic fish faunas on two remote island systems. Marine Biology, 2022, 169, 1.	1.5	0
5	mFD: an R package to compute and illustrate the multiple facets of functional diversity. Ecography, 2022, 2022, .	4.5	77
6	Linking key human-environment theories to inform the sustainability of coral reefs. Current Biology, 2022, 32, 2610-2620.e4.	3.9	5
7	Mesophotic coral ecosystems of French Polynesia are hotspots of alpha and beta generic diversity for scleractinian assemblages. Diversity and Distributions, 2022, 28, 1391-1403.	4.1	5
8	An invasive herbivorous fish (Siganus rivulatus) influences both benthic and planktonic microbes through defecation and nutrient excretion. Science of the Total Environment, 2022, 838, 156207.	8.0	5
9	Global patterns and predictors of trophic position, body size and jaw size in fishes. Global Ecology and Biogeography, 2021, 30, 414-428.	5.8	9
10	Ecological Specialization Within a Carnivorous Fish Family Is Supported by a Herbivorous Microbiome Shaped by a Combination of Gut Traits and Specific Diet. Frontiers in Marine Science, 2021, 8, .	2.5	31
11	Human impacts on global freshwater fish biodiversity. Science, 2021, 371, 835-838.	12.6	262
12	Trait similarity in reef fish faunas across the worldâ€™s oceans. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	50
13	The dimensionality and structure of species trait spaces. Ecology Letters, 2021, 24, 1988-2009.	6.4	63
14	Underwater robots provide similar fish biodiversity assessments as divers on coral reefs. Remote Sensing in Ecology and Conservation, 2021, 7, 567-578.	4.3	7
15	Predation Cues Lead to Reduced Foraging of Invasive Siganus rivulatus in the Mediterranean. Frontiers in Marine Science, 2021, 8, .	2.5	5
16	Automatic underwater fish species classification with limited data using few-shot learning. Ecological Informatics, 2021, 63, 101320.	5.2	23
17	Microbial Shift in the Enteric Bacteriome of Coral Reef Fish Following Climate-Driven Regime Shifts. Microorganisms, 2021, 9, 1711.	3.6	6
18	Use of environmental DNA in assessment of fish functional and phylogenetic diversity. Conservation Biology, 2021, 35, 1944-1956.	4.7	25

#	ARTICLE	IF	CITATIONS
19	Phylogenetic conservatism drives nutrient dynamics of coral reef fishes. Nature Communications, 2021, 12, 5432.	12.8	10
20	FISHMORPH: A global database on morphological traits of freshwater fishes. Global Ecology and Biogeography, 2021, 30, 2330-2336.	5.8	45
21	Coral reef fishes reveal strong divergence in the prevalence of traits along the global diversity gradient. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20211712.	2.6	6
22	A global database for metacommunity ecology, integrating species, traits, environment and space. Scientific Data, 2020, 7, 6.	5.3	28
23	A new method to control error rates in automated species identification with deep learning algorithms. Scientific Reports, 2020, 10, 10972.	3.3	18
24	Exceptional but vulnerable microbial diversity in coral reef animal surface microbiomes. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20200642.	2.6	12
25	Nutrient limitation, bioenergetics and stoichiometry: A new model to predict elemental fluxes mediated by fishes. Functional Ecology, 2020, 34, 1857-1869.	3.6	25
26	Morphological sorting of introduced freshwater fish species within and between donor realms. Global Ecology and Biogeography, 2020, 29, 803-813.	5.8	17
27	Global changes threaten functional and taxonomic diversity of insular species worldwide. Diversity and Distributions, 2020, 26, 402-414.	4.1	25
28	Meeting fisheries, ecosystem function, and biodiversity goals in a human-dominated world. Science, 2020, 368, 307-311.	12.6	99
29	High intraspecific variability in morphology and diet in tropical stream fish communities. Ecology of Freshwater Fish, 2019, 28, 41-52.	1.4	14
30	Fish communities diverge in species but converge in traits over three decades of warming. Global Change Biology, 2019, 25, 3972-3984.	9.5	41
31	Interspecific differences in environmental response blur trait dynamics in classic statistical analyses. Marine Biology, 2019, 166, 1.	1.5	1
32	Trait structure and redundancy determine sensitivity to disturbance in marine fish communities. Global Change Biology, 2019, 25, 3424-3437.	9.5	68
33	Species diversity and composition drive the aesthetic value of coral reef fish assemblages. Biology Letters, 2019, 15, 20190703.	2.3	19
34	Morphological diversity of freshwater fishes differs between realms, but morphologically extreme species are widespread. Global Ecology and Biogeography, 2019, 28, 211-221.	5.8	36
35	An attributeâ€diversity approach to functional diversity, functional beta diversity, and related (dis)similarity measures. Ecological Monographs, 2019, 89, e01343.	5.4	80
36	Accounting for intraspecific diversity when examining relationships between non-native species and functional diversity. Oecologia, 2019, 189, 171-183.	2.0	20

#	ARTICLE	IF	CITATIONS
37	Interspecific differences in the effect of fish on marine microbial plankton. Aquatic Microbial Ecology, 2019, 82, 289-298.	1.8	3
38	Complementarity of the multidimensional functional and the taxonomic approaches to study phytoplankton communities in three Mediterranean coastal lagoons of different trophic status. Hydrobiologia, 2018, 815, 207-227.	2.0	17
39	Functional diversity measures revealed impacts of non-native species and habitat degradation on species-poor freshwater fish assemblages. Science of the Total Environment, 2018, 625, 861-871.	8.0	50
40	Disentangling the pathways of land use impacts on the functional structure of fish assemblages in Amazon streams. Ecography, 2018, 41, 219-232.	4.5	166
41	A Climate-Driven Functional Inversion of Connected Marine Ecosystems. Current Biology, 2018, 28, 3654-3660.e3.	3.9	39
42	Functional biodiversity loss along natural CO2 gradients. Nature Communications, 2018, 9, 5149.	12.8	77
43	Nonâ€native species led to marked shifts in functional diversity of the world freshwater fish faunas. Ecology Letters, 2018, 21, 1649-1659.	6.4	74
44	A Deep learning method for accurate and fast identification of coral reef fishes in underwater images. Ecological Informatics, 2018, 48, 238-244.	5.2	147
45	Functional rarity of coral reef fishes at the global scale: Hotspots and challenges for conservation. Biological Conservation, 2018, 226, 288-299.	4.1	35
46	Confronting species aesthetics with ecological functions in coral reef fish. Scientific Reports, 2018, 8, 11733.	3.3	18
47	Community-wide scan identifies fish species associated with coral reef services across the Indo-Pacific. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20181167.	2.6	13
48	Skin microbiome of coral reef fish is highly variable and driven by host phylogeny and diet. Microbiome, 2018, 6, 147.	11.1	123
49	Biogeographical region and environmental conditions drive functional traits of estuarine fish assemblages worldwide. Fish and Fisheries, 2017, 18, 752-771.	5.3	55
50	On the risks of using dendrograms to measure functional diversity and multidimensional spaces to measure phylogenetic diversity: a comment on Sobral etÂal. (2016). Ecology Letters, 2017, 20, 554-557.	6.4	28
51	A global database of nitrogen and phosphorus excretion rates of aquatic animals. Ecology, 2017, 98, 1475-1475.	3.2	26
52	Functional ecology of fish: current approaches and future challenges. Aquatic Sciences, 2017, 79, 783-801.	1.5	270
53	Biogeographical, environmental and anthropogenic determinants of global patterns in bird taxonomic and trait turnover. Global Ecology and Biogeography, 2017, 26, 1190-1200.	5.8	33
54	Captive bottlenose dolphins and killer whales harbor a species-specific skin microbiota that varies among individuals. Scientific Reports, 2017, 7, 15269.	3.3	31

#	ARTICLE	IF	CITATIONS
55	Quaternion based control for robotic observation of marine diversity. , 2017, , .		3
56	Mare Incognitum: A Glimpse into Future Plankton Diversity and Ecology Research. Frontiers in Marine Science, 2017, 4, .	2.5	10
57	Formal Method for Mission Controller Generation of a Mobile Robot. Lecture Notes in Computer Science, 2017, , 586-600.	1.3	0
58	Taxonomic and functional diversity increase the aesthetic value of coralligenous reefs. Scientific Reports, 2016, 6, 34229.	3.3	45
59	Unexpected high vulnerability of functions in wilderness areas: evidence from coral reef fishes. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20160128.	2.6	35
60	Rare species contribute disproportionately to the functional structure of species assemblages. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20160084.	2.6	277
61	Increased taxonomic and functional similarity does not increase the trophic similarity of communities. Global Ecology and Biogeography, 2016, 25, 46-54.	5.8	19
62	Coral Reef Fish Detection and Recognition in Underwater Videos by Supervised Machine Learning: Comparison Between Deep Learning and HOG+SVM Methods. Lecture Notes in Computer Science, 2016, , 160-171.	1.3	72
63	Global functional diversity of freshwater fish is concentrated in the Neotropics while functional vulnerability is widespread. Scientific Reports, 2016, 6, 22125.	3.3	162
64	Worldwide freshwater fish homogenization is driven by a few widespread non-native species. Biological Invasions, 2016, 18, 1295-1304.	2.4	63
65	Mapping biodiversity in three-dimensions challenges marine conservation strategies: The example of coralligenous assemblages in North-Western Mediterranean Sea. Ecological Indicators, 2016, 61, 1042-1054.	6.3	37
66	Nonâ€native species modify the isotopic structure of freshwater fish communities across the globe. Ecography, 2015, 38, 979-985.	4.5	52
67	High diversity of skin-associated bacterial communities of marine fishes is promoted by their high variability among body parts, individuals and species. FEMS Microbiology Ecology, 2015, 91, fiv061.	2.7	90
68	From current distinctiveness to future homogenization of the world's freshwater fish faunas. Diversity and Distributions, 2015, 21, 223-235.	4.1	32
69	Quantifying the multiple facets of isotopic diversity: New metrics for stable isotope ecology. Ecological Indicators, 2015, 56, 152-160.	6.3	124
70	How many dimensions are needed to accurately assess functional diversity? A pragmatic approach for assessing the quality of functional spaces. Global Ecology and Biogeography, 2015, 24, 728-740.	5.8	338
71	Combinations of biological attributes predict temporal dynamics of fish species in response to environmental changes. Ecological Indicators, 2015, 48, 147-156.	6.3	33
72	Coral-associated viruses and bacteria in the Ha Long Bay, Vietnam. Aquatic Microbial Ecology, 2015, 76, 149-161.	1.8	1

#	ARTICLE	IF	CITATIONS
73	Historical assemblage distinctiveness and the introduction of widespread nonâ€•native species explain worldwide changes in freshwater fish taxonomic dissimilarity. Global Ecology and Biogeography, 2014, 23, 574-584.	5.8	44
74	Functional homogenization exceeds taxonomic homogenization among <scp>E</scp>uropean fish assemblages. Global Ecology and Biogeography, 2014, 23, 1450-1460.	5.8	127
75	Functional over-redundancy and high functional vulnerability in global fish faunas on tropical reefs. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13757-13762.	7.1	391
76	Species contribute differently to the taxonomic, functional, and phylogenetic alpha and beta diversity of freshwater fish communities. Diversity and Distributions, 2014, 20, 1235-1244.	4.1	55
77	Temporal changes in the taxonomic and functional diversity of fish communities in shallow Chinese lakes: the effects of riverâ€“lake connections and aquaculture. Aquatic Conservation: Marine and Freshwater Ecosystems, 2014, 24, 23-34.	2.0	21
78	Global mismatch between species richness and vulnerability of reef fish assemblages. Ecology Letters, 2014, 17, 1101-1110.	6.4	78
79	High intraspecific variability in the functional niche of a predator is associated with ontogenetic shift and individual specialization. Ecology and Evolution, 2014, 4, 4649-4657.	1.9	64
80	A functional approach reveals community responses to disturbances. Trends in Ecology and Evolution, 2013, 28, 167-177.	8.7	1,341
81	Fish-SPRICH: a database of freshwater fish species richness throughout the World. Hydrobiologia, 2013, 700, 343-349.	2.0	73
82	Toward a loss of functional diversity in stream fish assemblages under climate change. Global Change Biology, 2013, 19, 387-400.	9.5	160
83	Decomposing functional Î²-diversity reveals that low functional Î²-diversity is driven by low functional turnover in European fish assemblages. Global Ecology and Biogeography, 2013, 22, 671-681.	5.8	318
84	Intraâ€•and interspecific differences in nutrient recycling by European freshwater fish. Freshwater Biology, 2012, 57, 2330-2341.	2.4	21
85	Measuring changes in taxonomic dissimilarity following species introductions and extirpations. Ecological Indicators, 2012, 18, 552-558.	6.3	22
86	Low Functional Î²-Diversity Despite High Taxonomic Î²-Diversity among Tropical Estuarine Fish Communities. PLoS ONE, 2012, 7, e40679.	2.5	126
87	Nutrient recycling by coastal macrofauna: intra- versus interspecific differences. Marine Ecology - Progress Series, 2012, 452, 297-303.	1.9	11
88	Functional Structure of Biological Communities Predicts Ecosystem Multifunctionality. PLoS ONE, 2011, 6, e17476.	2.5	348
89	Predicting trophic guild and diet overlap from functional traits: statistics, opportunities and limitations for marine ecology. Marine Ecology - Progress Series, 2011, 436, 17-28.	1.9	69
90	The multidimensionality of the niche reveals functional diversity changes in benthic marine biotas across geological time. Ecology Letters, 2011, 14, 561-568.	6.4	177

#	ARTICLE	IF	CITATIONS
91	Homogenization patterns of the worldâ€™s freshwater fish faunas. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 18003-18008.	7.1	197
92	Colossal Aggregations of Giant Alien Freshwater Fish as a Potential Biogeochemical Hotspot. PLoS ONE, 2011, 6, e25732.	2.5	34
93	Contrasting changes in taxonomic vs. functional diversity of tropical fish communities after habitat degradation. Ecological Applications, 2010, 20, 1512-1522.	3.8	452
94	Functional diversity measures: an overview of their redundancy and their ability to discriminate community assembly rules. Functional Ecology, 2010, 24, 867-876.	3.6	1,105
95	Defining and measuring ecological specialization. Journal of Applied Ecology, 2010, 47, 15-25.	4.0	568
96	Towards a consensus for calculating dendrogramâ€based functional diversity indices. Oikos, 2008, 117, 794-800.	2.7	143
97	Additive partitioning of diversity including species differences: a comment on Hardy & Senterre (2007). Journal of Ecology, 2008, 96, 845-848.	4.0	32
98	NEW MULTIDIMENSIONAL FUNCTIONAL DIVERSITY INDICES FOR A MULTIFACETED FRAMEWORK IN FUNCTIONAL ECOLOGY. Ecology, 2008, 89, 2290-2301.	3.2	2,318
99	Stable trophic structure across coastal nekton assemblages despite high species turnover. Marine Ecology - Progress Series, 2008, 364, 135-146.	1.9	19