David Mouillot

List of Publications by Year in descending order

109 papers	18,961 citations	28274 55 h-index	28297 105 g-index
113 all docs	113 docs citations	113 times ranked	18484 citing authors

#	Article	IF	Citations
1	Climate differently influences the genomic patterns of two sympatric marine fish species. Journal of Animal Ecology, 2022, 91, 1180-1195.	2.8	8
2	Functionally distinct tree species support long-term productivity in extreme environments. Proceedings of the Royal Society B: Biological Sciences, 2022, 289, 20211694.	2.6	6
3	Plant community impact on productivity: Trait diversity or key(stone) species effects?. Ecology Letters, 2022, 25, 913-925.	6.4	26
4	Identifying barriers to gene flow and hierarchical conservation units from seascape genomics: a modelling framework applied to a marine predator. Ecography, 2022, 2022, .	4.5	7
5	Genomic insights into the historical and contemporary demographics of the grey reef shark. Heredity, 2022, 128, 225-235.	2.6	8
6	Similar trait structure and vulnerability in pelagic fish faunas on two remote island systems. Marine Biology, 2022, 169, 1.	1.5	0
7	mFD: an R package to compute and illustrate the multiple facets of functional diversity. Ecography, 2022, 2022, .	4.5	77
8	Cross-ocean patterns and processes in fish biodiversity on coral reefs through the lens of eDNA metabarcoding. Proceedings of the Royal Society B: Biological Sciences, 2022, 289, 20220162.	2.6	14
9	Linking key human-environment theories to inform the sustainability of coral reefs. Current Biology, 2022, 32, 2610-2620.e4.	3.9	5
10	Response and Effect Traits of Coral Reef Fish. Frontiers in Marine Science, 2021, 8, .	2.5	15
11	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
12	Protecting the global ocean for biodiversity, food and climate. Nature, 2021, 592, 397-402.	27.8	359
13	The last hotspots of structural complexity as conservation targets in the Mesoamerican Coral Reef. Biological Conservation, 2021, 256, 109021.	4.1	8
14	The dimensionality and structure of species trait spaces. Ecology Letters, 2021, 24, 1988-2009.	6.4	63
15	Reviewing the Ecosystem Services, Societal Goods, and Benefits of Marine Protected Areas. Frontiers in Marine Science, 2021, 8, .	2.5	27
16	Benchmarking bioinformatic tools for fast and accurate eDNA metabarcoding species identification. Molecular Ecology Resources, 2021, 21, 2565-2579.	4.8	35
17	Contrasted patterns in climate change risk for Mediterranean fisheries. Global Change Biology, 2021, 27, 5920-5933.	9.5	10
18	Use of environmental DNA in assessment of fish functional and phylogenetic diversity. Conservation Biology, 2021, 35, 1944-1956.	4.7	25

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19	Rebound in functional distinctiveness following warming and reduced fishing in the North Sea. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20201600.	2.6	14
20	Influence of historical changes in tropical reef habitat on the diversification of coral reef fishes. Scientific Reports, 2021, 11, 20731.	3.3	4
21	A global database for metacommunity ecology, integrating species, traits, environment and space. Scientific Data, 2020, 7, 6.	5.3	28
22	Global distribution and conservation status of ecologically rare mammal and bird species. Nature Communications, 2020, 11, 5071.	12.8	61
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	Let more big fish sink: Fisheries prevent blue carbon sequestrationâ€"half in unprofitable areas. Science Advances, 2020, 6, .	10.3	77
25	Global correlates of terrestrial and marine coverage by protected areas on islands. Nature Communications, 2020, 11, 4438.	12.8	8
26	Spatial graphs highlight how multiâ€generational dispersal shapes landscape genetic patterns. Ecography, 2020, 43, 1167-1179.	4.5	21
27	Accumulation curves of environmental DNA sequences predict coastal fish diversity in the coral triangle. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20200248.	2.6	35
28	Low fuel cost and rising fish price threaten coral reef wilderness. Conservation Letters, 2020, 13, e12706.	5.7	14
29	Global determinants of freshwater and marine fish genetic diversity. Nature Communications, 2020, 11, 692.	12.8	97
30	Global vulnerability of marine mammals to global warming. Scientific Reports, 2020, 10, 548.	3.3	63
31	Meeting fisheries, ecosystem function, and biodiversity goals in a human-dominated world. Science, 2020, 368, 307-311.	12.6	99
32	Fish communities diverge in species but converge in traits over three decades of warming. Global Change Biology, 2019, 25, 3972-3984.	9.5	41
33	Interspecific differences in environmental response blur trait dynamics in classic statistical analyses. Marine Biology, 2019, 166, 1.	1.5	1
34	Remote reefs and seamounts are the last refuges for marine predators across the Indo-Pacific. PLoS Biology, 2019, 17, e3000366.	5.6	53
35	Trait structure and redundancy determine sensitivity to disturbance in marine fish communities. Global Change Biology, 2019, 25, 3424-3437.	9.5	68
36	Isolation and no-entry marine reserves mitigate anthropogenic impacts on grey reef shark behavior. Scientific Reports, 2019, 9, 2897.	3.3	25

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37	Escaping the perfect storm of simultaneous climate change impacts on agriculture and marine fisheries. Science Advances, 2019, 5, eaaw9976.	10.3	60
38	Functional reorganization of marine fish nurseries under climate warming. Global Change Biology, 2019, 25, 660-674.	9.5	37
39	Environmental DNA illuminates the dark diversity of sharks. Science Advances, 2018, 4, eaap9661.	10.3	222
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	Influence of the geography of speciation on current patterns of coral reef fish biodiversity across the Indoâ€Pacific. Ecography, 2018, 41, 1295-1306.	4.5	20
42	Reef accessibility impairs the protection of sharks. Journal of Applied Ecology, 2018, 55, 673-683.	4.0	46
43	A Climate-Driven Functional Inversion of Connected Marine Ecosystems. Current Biology, 2018, 28, 3654-3660.e3.	3.9	39
44	Functional rarity of coral reef fishes at the global scale: Hotspots and challenges for conservation. Biological Conservation, 2018, 226, 288-299.	4.1	35
45	Prioritizing phylogenetic diversity captures functional diversity unreliably. Nature Communications, 2018, 9, 2888.	12.8	144
46	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
47	Gravity of human impacts mediates coral reef conservation gains. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E6116-E6125.	7.1	185
48	Isolation drives taxonomic and functional nestedness in tropical reef fish faunas. Ecography, 2017, 40, 425-435.	4.5	54
49	Functional diversity and redundancy across fish gut, sediment and water bacterial communities. Environmental Microbiology, 2017, 19, 3268-3282.	3.8	30
50	Functional ecology of fish: current approaches and future challenges. Aquatic Sciences, 2017, 79, 783-801.	1.5	270
51	Functional Rarity: The Ecology of Outliers. Trends in Ecology and Evolution, 2017, 32, 356-367.	8.7	258
52	Responses of coral reef fishes to past climate changes are related to lifeâ€history traits. Ecology and Evolution, 2017, 7, 1996-2005.	1.9	15
53	Environmental DNA reveals tropical shark diversity in contrasting levels of anthropogenic impact. Scientific Reports, 2017, 7, 16886.	3.3	126
54	Sustaining Rare Marine Microorganisms: Macroorganisms As Repositories and Dispersal Agents of Microbial Diversity. Frontiers in Microbiology, 2017, 8, 947.	3.5	66

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55	How accessible are coral reefs to people? A global assessment based on travel time. Ecology Letters, 2016, 19, 351-360.	6.4	97
56	Environmental heterogeneity among lakes promotes hyper Î²â€diversity across phytoplankton communities. Freshwater Biology, 2016, 61, 633-645.	2.4	70
57	Marine reserves lag behind wilderness in the conservation of key functional roles. Nature Communications, 2016, 7, 12000.	12.8	71
58	Plate tectonics drive tropical reef biodiversity dynamics. Nature Communications, 2016, 7, 11461.	12.8	136
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	Biodiversity in the Anthropocene: prospects and policy. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20162094.	2.6	82
61	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
62	Patterns and multi-scale drivers of phytoplankton species richness in temperate peri-urban lakes. Science of the Total Environment, 2016, 559, 74-83.	8.0	27
63	Historical and contemporary determinants of global phylogenetic structure in tropical reef fish faunas. Ecography, 2016, 39, 825-835.	4.5	20
64	Ecological traits shape genetic diversity patterns across the Mediterranean Sea: a quantitative review on fishes. Journal of Biogeography, 2016, 43, 845-857.	3.0	22
65	Additive effects of climate change on connectivity between marine protected areas and larval supply to fished areas. Diversity and Distributions, 2015, 21, 139-150.	4.1	71
66	Conserving the functional and phylogenetic trees of life of European tetrapods. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20140005.	4.0	70
67	Forecasted coral reef decline in marine biodiversity hotspots under climate change. Global Change Biology, 2015, 21, 2479-2487.	9.5	97
68	Predicting climate-driven regime shifts versus rebound potential in coral reefs. Nature, 2015, 518, 94-97.	27.8	607
69	â€˜Lowâ€changing fruitâ€™ for conservation of marine vertebrate species at risk in the <scp>M</scp>editerranean <scp>S</scp>ea. Global Ecology and Biogeography, 2015, 24, 226-239.	5.8	30
70	Extending networks of protected areas to optimize connectivity and population growth rate. Ecography, 2015, 38, 273-282.	4.5	43
71	Assembly rules of ectoparasite communities across scales: combining patterns of abiotic factors, host composition, geographic space, phylogeny and traits. Ecography, 2015, 38, 184-197.	4.5	76
72	Projected impacts of climate warming on the functional and phylogenetic components of coastal Mediterranean fish biodiversity. Ecography, 2015, 38, 681-689.	4.5	25

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73	Representing taxonomic, phylogenetic and functional diversity: new challenges for <scp>M</scp>editerranean marineâ€protected areas. Diversity and Distributions, 2015, 21, 175-187.	4.1	57
74	Conservation physiology across scales: insights from the marine realm. , 2014, 2, cou024-cou024.		37
75	Spatial mismatch of phylogenetic diversity across three vertebrate groups and protected areas in Europe. Diversity and Distributions, 2014, 20, 674-685.	4.1	67
76	Multifaceted diversityâ€“area relationships reveal global hotspots of mammalian species, trait and lineage diversity. Global Ecology and Biogeography, 2014, 23, 836-847.	5.8	110
77	Asynchrony of taxonomic, functional and phylogenetic diversity in birds. Global Ecology and Biogeography, 2014, 23, 780-788.	5.8	91
78	Quaternary coral reef refugia preserved fish diversity. Science, 2014, 344, 1016-1019.	12.6	148
79	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
80	Global mismatch between species richness and vulnerability of reef fish assemblages. Ecology Letters, 2014, 17, 1101-1110.	6.4	78
81	Projected climate change and the changing biogeography of coastal Mediterranean fishes. Journal of Biogeography, 2013, 40, 534-547.	3.0	104
82	The challenge of delineating biogeographical regions: nestedness matters for Indoâ€Pacific coral reef fishes. Journal of Biogeography, 2013, 40, 2228-2237.	3.0	32
83	Biogeographic, historical and environmental influences on the taxonomic and functional structure of <scp>A</scp>tlantic reef fish assemblages. Global Ecology and Biogeography, 2013, 22, 1173-1182.	5.8	25
84	Inferring food web structure from predatorâ€“prey body size relationships. Methods in Ecology and Evolution, 2013, 4, 1083-1090.	5.2	185
85	A functional approach reveals community responses to disturbances. Trends in Ecology and Evolution, 2013, 28, 167-177.	8.7	1,341
86	A guide for using functional diversity indices to reveal changes in assembly processes along ecological gradients. Journal of Vegetation Science, 2013, 24, 794-806.	2.2	316
87	Rare Species Support Vulnerable Functions in High-Diversity Ecosystems. PLoS Biology, 2013, 11, e1001569.	5.6	654
88	Functional Diversity Measures. , 2013, , 597-608.		25
89	Global Biogeography of Reef Fishes: A Hierarchical Quantitative Delineation of Regions. PLoS ONE, 2013, 8, e81847.	2.5	181
90	Low Connectivity between Mediterranean Marine Protected Areas: A Biophysical Modeling Approach for the Dusky Grouper Epinephelus marginatus. PLoS ONE, 2013, 8, e68564.	2.5	117

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91	Projecting the Impact of Regional Land-Use Change and Water Management Policies on Lake Water Quality: An Application to Periurban Lakes and Reservoirs. PLoS ONE, 2013, 8, e72227.	2.5	15
92	Low Functional Î²-Diversity Despite High Taxonomic Î²-Diversity among Tropical Estuarine Fish Communities. PLoS ONE, 2012, 7, e40679.	2.5	126
93	Quantifying Phylogenetic Beta Diversity: Distinguishing between â€˜Trueâ€™ Turnover of Lineages and Phylogenetic Diversity Gradients. PLoS ONE, 2012, 7, e42760.	2.5	169
94	Combining projected changes in species richness and composition reveals climate change impacts on coastal Mediterranean fish assemblages. Global Change Biology, 2012, 18, 2995-3003.	9.5	98
95	A Phylogenetic Perspective on the Evolution of Mediterranean Teleost Fishes. PLoS ONE, 2012, 7, e36443.	2.5	50
96	Functional Structure of Biological Communities Predicts Ecosystem Multifunctionality. PLoS ONE, 2011, 6, e17476.	2.5	348
97	Selecting statistical models and variable combinations for optimal classification using otolith microchemistry. , 2011, 21, 1352-1364.		89
98	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
99	Beyond taxonomic diversity patterns: how do Î±, Î² and Î³ components of bird functional and phylogenetic diversity respond to environmental gradients across France?. Global Ecology and Biogeography, 2011, 20, 893-903.	5.8	193
100	Host specificity in phylogenetic and geographic space. Trends in Parasitology, 2011, 27, 355-361.	3.3	267
101	Protected and Threatened Components of Fish Biodiversity in the Mediterranean Sea. Current Biology, 2011, 21, 1044-1050.	3.9	125
102	Contrasting changes in taxonomic vs. functional diversity of tropical fish communities after habitat degradation. Ecological Applications, 2010, 20, 1512-1522.	3.8	452
103	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
104	Defining and measuring ecological specialization. Journal of Applied Ecology, 2010, 47, 15-25.	4.0	568
105	Spatial mismatch and congruence between taxonomic, phylogenetic and functional diversity: the need for integrative conservation strategies in a changing world. Ecology Letters, 2010, 13, 1030-1040.	6.4	721
106	The Biodiversity of the Mediterranean Sea: Estimates, Patterns, and Threats. PLoS ONE, 2010, 5, e11842.	2.5	1,439
107	Towards a consensus for calculating dendrogramâ€based functional diversity indices. Oikos, 2008, 117, 794-800.	2.7	143
108	NEW MULTIDIMENSIONAL FUNCTIONAL DIVERSITY INDICES FOR A MULTIFACETED FRAMEWORK IN FUNCTIONAL ECOLOGY. Ecology, 2008, 89, 2290-2301.	3.2	2,318

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109	Functional richness, functional evenness and functional divergence: the primary components of functional diversity. Oikos, 2005, 111, 112-118.	2.7	1,475