Steven D Gaines

List of Publications by Year
in descending order

144	14,877	36303 51	22832 112
papers	citations	h-index	g-index

149	149	149	14957
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	PROPAGULE DISPERSAL IN MARINE AND TERRESTRIAL ENVIRONMENTS: A COMMUNITY PERSPECTIVE. Ecology, 2003, 84, 2007-2020.	3.2	839
2	Temperature control of larval dispersal and the implications for marine ecology, evolution, and conservation. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 1266-1271.	7.1	749
3	An index to assess the health and benefits of the global ocean. Nature, 2012, 488, 615-620.	27.8	736
4	Species diversity: from global decreases to local increases. Trends in Ecology and Evolution, 2003, 18, 561-566.	8.7	701
5	Can Catch Shares Prevent Fisheries Collapse?. Science, 2008, 321, 1678-1681.	12.6	693
6	Designing marine reserve networks for both conservation and fisheries management. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 18286-18293.	7.1	689
7	The 'abundant centre' distribution: to what extent is it a biogeographical rule?. Ecology Letters, 2002, 5, 137-147.	6.4	628
8	Status and Solutions for the Worldâ€™s Unassessed Fisheries. Science, 2012, 338, 517-520.	12.6	621
9	Global fishery prospects under contrasting management regimes. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5125-5129.	7.1	485
10	Moving beyond assumptions to understand abundance distributions across the ranges of species. Trends in Ecology and Evolution, 2006, 21, 524-530.	8.7	426
11	Temperature or Transport? Range Limits in Marine Species Mediated Solely by Flow. American Naturalist, 2000, 155, 769-789.	2.1	402
12	Protecting the global ocean for biodiversity, food and climate. Nature, 2021, 592, 397-402.	27.8	359
13	Mapping the global potential for marine aquaculture. Nature Ecology and Evolution, 2017, 1, 1317-1324.	7.8	327
14	POPULATION MODELS FOR MARINE RESERVE DESIGN: A RETROSPECTIVE AND PROSPECTIVE SYNTHESIS. , 2003, 13, 47-64.		309
15	Evaluating tradeoffs among ecosystem services to inform marine spatial planning. Marine Policy, 2013, 38, 80-89.	3.2	270
16	Propagule dispersal and the scales of marine community process. Diversity and Distributions, 2005, 11, 139-148.	4.1	246
17	FISHING THE LINE NEAR MARINE RESERVES IN SINGLE AND MULTISPECIES FISHERIES. , 2007, 17, 1039-1054.		239
18	Seascape genetics and the spatial ecology of marine populations. Fish and Fisheries, 2008, 9, 363-377.	5.3	224

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19	AVOIDING CURRENT OVERSIGHTS IN MARINE RESERVE DESIGN. , 2003, 13, 32-46.		223
20	Managing mining of the deep seabed. Science, 2015, 349, 144-145.	12.6	187
21	Integrated Land-Sea Conservation Planning: The Missing Links. Annual Review of Ecology, Evolution, and Systematics, 2011, 42, 381-409.	8.3	181
22	Improved fisheries management could offset many negative effects of climate change. Science Advances, 2018, 4, eaao1378.	10.3	168
23	Comparative terrestrial feed and land use of an aquaculture-dominant world. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5295-5300.	7.1	164
24	The limits to biogeographical distributions: insights from the northward range extension of the marine snail, Kelletia kelletii (Forbes, 1852). Journal of Biogeography, 2003, 30, 913-924.	3.0	163
25	Geographical abundance distributions of coastal invertebrates: using one-dimensional ranges to test biogeographic hypotheses. Journal of Biogeography, 2002, 29, 985-997.	3.0	159
26	ENSURING PERSISTENCE OF MARINE RESERVES: CATASTROPHES REQUIRE ADOPTING AN INSURANCE FACTOR. , 2003, 13, 8-24.		159
27	When Do Ecosystem Services Depend on Rare Species?. Trends in Ecology and Evolution, 2019, 34, 746-758.	8.7	159
28	Evolving science of marine reserves: New developments and emerging research frontiers. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 18251-18255.	7.1	146
29	Ecological effects of full and partial protection in the crowded Mediterranean Sea: a regional meta-analysis. Scientific Reports, 2017, 7, 8940.	3.3	138
30	CONFOUNDING EFFECTS OF THE EXPORT OF PRODUCTION AND THE DISPLACEMENT OF FISHING EFFORT FROM MARINE RESERVES. , 2004, 14, 1248-1256.		137
31	Offshore aquaculture: Spatial planning principles for sustainable development. Ecology and Evolution, 2017, 7, 733-743.	1.9	128
32	High fishery catches through trophic cascades in China. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 717-721.	7.1	116
33	MARINE RESERVE DESIGN AND THE EVOLUTION OF SIZE AT MATURATION IN HARVESTED FISH. , 2005, 15, 882-901.		112
34	Identifying critical regions in small-world marine metapopulations. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E907-13.	7.1	107
35	Operationalizing Network Theory for Ecosystem Service Assessments. Trends in Ecology and Evolution, 2017, 32, 118-130.	8.7	103
36	Ecological impacts of humanâ€induced animal behaviour change. Ecology Letters, 2020, 23, 1522-1536.	6.4	101

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37	MAKING MOUNTAINS OUT OF BARNACLES: THE DYNAMICS OF ACORN BARNACLE HUMMOCKING. Ecology, 1998, 79, 1382-1394.	3.2	98
38	Marine reserve effects on fishery profit. Ecology Letters, 2008, 11, 370-379.	6.4	95
39	Agricultural pesticide use and adverse birth outcomes in the San Joaquin Valley of California. Nature Communications, 2017, 8, 302.	12.8	91
40	Rapid and lasting gains from solving illegal fishing. Nature Ecology and Evolution, 2018, 2, 650-658.	7.8	85
41	Five rules for pragmatic blue growth. Marine Policy, 2018, 87, 331-339.	3.2	78
42	Let more big fish sink: Fisheries prevent blue carbon sequestrationâ€”half in unprofitable areas. Science Advances, 2020, 6, .	10.3	77
43	MARINE RESERVES EXPLOIT POPULATION STRUCTURE AND LIFE HISTORY IN POTENTIALLY IMPROVING FISHERIES YIELDS. , 2005, 15, 2180-2191.		76
44	Habitat Size, Recruitment, and Longevity as Factors Limiting Population Size in Stageâ€Structured Species. American Naturalist, 2005, 165, 82-94.	2.1	76
45	Calibrating Environmental DNA Metabarcoding to Conventional Surveys for Measuring Fish Species Richness. Frontiers in Ecology and Evolution, 2020, 8, .	2.2	74
46	REPRODUCTION ON THE EDGE: LARGE-SCALE PATTERNS OF INDIVIDUAL PERFORMANCE IN A MARINE INVERTEBRATE. Ecology, 2007, 88, 2229-2239.	3.2	72
47	Fishing Indirectly Structures Macroalgal Assemblages by Altering Herbivore Behavior. American Naturalist, 2010, 176, 785-801.	2.1	72
48	New metrics for managing and sustaining the ocean's bounty. Marine Policy, 2012, 36, 303-306.	3.2	67
49	Recruitment of intertidal invertebrates and oceanographic variability at Santa Cruz Island, California. Limnology and Oceanography, 2005, 50, 1473-1479.	3.1	66
50	Cold range edges of marine fishes track climate change better than warm edges. Global Change Biology, 2020, 26, 2908-2922.	9.5	66
51	Realistic fisheries management reforms could mitigate the impacts of climate change in most countries. PLoS ONE, 2020, 15, e0224347.	2.5	66
52	Offshore aquaculture in the United States: Untapped potential in need of smart policy. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 7162-7165.	7.1	65
53	Linking home ranges to protected area size: The case study of the Mediterranean Sea. Biological Conservation, 2018, 221, 175-181.	4.1	64
54	Modelâ€based assessment of persistence in proposed marine protected area designs. Ecological Applications, 2009, 19, 433-448.	3.8	63

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55	Key Features and Contextâ€Dependence of Fisheryâ€Induced Trophic Cascades. Conservation Biology, 2010, 24, 382-394.	4.7	63
56	Economic Incentives and Global Fisheries Sustainability. Annual Review of Resource Economics, 2010, 2, 299-318.	3.7	61
57	Conservation management approaches to protecting the capacity for corals to respond to climate change: a theoretical comparison. Global Change Biology, 2010, 16, 1229-1246.	9.5	58
58	A global network of marine protected areas for food. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 28134-28139.	7.1	56
59	A new narrative for the ocean. Science, 2019, 364, 911-911.	12.6	55
60	Fisheries regulatory regimes and resilience to climate change. Ambio, 2017, 46, 399-412.	5.5	54
61	Range contraction enables harvesting to extinction. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 3945-3950.	7.1	53
62	Underestimating the benefits of marine protected areas for the replenishment of fished populations. Frontiers in Ecology and the Environment, 2019, 17, 407-413.	4.0	53
63	CAN RAPOPORTâ€™S RULE BE RESCUED? MODELING CAUSES OF THE LATITUDINAL GRADIENT IN SPECIES RICHNESS. Ecology, 1999, 80, 2474-2482.	3.2	50
64	Marine reserves solve an important bycatch problem in fisheries. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8927-8934.	7.1	45
65	To what extent can ecosystem services motivate protecting biodiversity?. Ecology Letters, 2017, 20, 935-946.	6.4	45
66	Solutions for Recovering and Sustaining the Bounty of the Ocean: Combining Fishery Reforms, Rights-Based Fisheries Management, and Marine Reserves. Oceanography, 2015, 25, 252-263.	1.0	44
67	Resetting predator baselines in coral reef ecosystems. Scientific Reports, 2017, 7, 43131.	3.3	44
68	Trophic redundancy and predator size class structure drive differences in kelp forest ecosystem dynamics. Ecology, 2020, 101, e02993.	3.2	43
69	Biogeographic constraints to marine conservation in a changing climate. Annals of the New York Academy of Sciences, 2018, 1429, 5-17.	3.8	40
70	Expanding marine protected areas to include degraded coral reefs. Conservation Biology, 2016, 30, 1182-1191.	4.7	39
71	Remaining questions in the case for balanced harvesting. Fish and Fisheries, 2016, 17, 1216-1226.	5.3	39
72	Using people's perceptions of ecosystem services to guide modeling and management efforts. Science of the Total Environment, 2018, 637-638, 1014-1025.	8.0	38

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73	Range edges of North American marine species are tracking temperature over decades. Global Change Biology, 2021, 27, 3145-3156.	9.5	38
74	Drivers of redistribution of fishing and nonâ€fishing effort after the implementation of a marine protected area network. Ecological Applications, 2017, 27, 416-428.	3.8	37
75	U.S. seafood import restriction presents opportunity and risk. Science, 2016, 354, 1372-1374.	12.6	36
76	Using portfolio theory to assess tradeoffs between return from natural capital and social equity across space. Biological Conservation, 2011, 144, 1499-1507.	4.1	35
77	Protecting marine mammals, turtles, and birds by rebuilding global fisheries. Science, 2018, 359, 1255-1258.	12.6	34
78	Functional diversity of catch mitigates negative effects of temperature variability on fisheries yields. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20161435.	2.6	33
79	Siting marine protected areas based on habitat quality and extent provides the greatest benefit to spatially structured metapopulations. Ecosphere, 2016, 7, e01533.	2.2	33
80	Protection of large predators in a marine reserve alters size-dependent prey mortality. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20161936.	2.6	33
81	Managing Bay and Estuarine Ecosystems for Multiple Services. Estuaries and Coasts, 2015, 38, 35-48.	2.2	32
82	A case for seaweed aquaculture inclusion in U.S. nutrient pollution management. Marine Policy, 2021, 129, 104506.	3.2	32
83	Spillover from marine reserves related to mechanisms of population regulation. Theoretical Ecology, 2008, 1, 117-127.	1.0	31
84	Designing MPAs for food security in open-access fisheries. Scientific Reports, 2019, 9, 8033.	3.3	31
85	Where Does River Runoff Matter for Coastal Marine Conservation?. Frontiers in Marine Science, 2016, 3, .	2.5	29
86	Growth and life history variability of the grey reef shark (Carcharhinus amblyrhynchos) across its range. PLoS ONE, 2017, 12, e0172370.	2.5	29
87	Reconciling conflict between the direct and indirect effects of marine reserve protection. Environmental Conservation, 2012, 39, 225-236.	1.3	27
88	Assessing the populationâ€level conservation effects of marine protected areas. Conservation Biology, 2021, 35, 1861-1870.	4.7	27
89	Opportunism on the High Seas: Foraging Ecology of Olive Ridley Turtles in the Eastern Pacific Ocean. Frontiers in Marine Science, 2017, 4, .	2.5	26
90	Organization Science improves management effectiveness of Marine Protected Areas. Journal of Environmental Management, 2019, 240, 285-292.	7.8	23

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91	Accounting for tourism benefits in marine reserve design. PLoS ONE, 2017, 12, e0190187.	2.5	21
92	Dispersal and Geographic Ranges in the Sea. , 0, , 227-249.		21
93	Expanding ocean food production under climate change. Nature, 2022, 605, 490-496.	27.8	20
94	Spatial and temporal variability in size at settlement of intertidal mytilid mussels from around Pt. Conception, California. Invertebrate Reproduction and Development, 2002, 41, 171-177.	0.8	18
95	Are Territorial Use Rights in Fisheries (TURFs) sufficiently large?. Marine Policy, 2017, 78, 189-195.	3.2	18
96	Fisheries governance in the face of climate change: Assessment of policy reform implications for Mexican fisheries. PLoS ONE, 2019, 14, e0222317.	2.5	18
97	Leveraging satellite technology to create true shark sanctuaries. Conservation Letters, 2019, 12, e12610.	5.7	18
98	The importance of cultural ecosystem services in natural resource-dependent communities: Implications for management. Ecosystem Services, 2020, 44, 101123.	5.4	18
99	Unexpected Management Choices When Accounting for Uncertainty in Ecosystem Service Tradeoff Analyses. Conservation Letters, 2017, 10, 422-430.	5.7	16
100	The cost of management delay: The case for reforming Mexican fisheries sooner rather than later. Marine Policy, 2018, 88, 1-10.	3.2	16
101	Opportunities for agentâ€based modelling in human dimensions of fisheries. Fish and Fisheries, 2020, 21, 570-587.	5.3	16
102	New England Cod Collapse and the Climate. PLoS ONE, 2016, 11, e0158487.	2.5	15
103	Spatiotemporal variation in the relationship between landscape simplification and insecticide use. Ecological Applications, 2015, 25, 1976-1983.	3.8	14
104	Compelling evidence: an influence on middle school studentsâ€™ accounts that may impact decision-making about socioscientific issues. Environmental Education Research, 2017, 23, 1115-1129.	2.9	14
105	Trophic cascades in an invaded ecosystem: native keystone predators facilitate a dominant invader in an estuarine community. Oikos, 2015, 124, 1282-1292.	2.7	13
106	Do Behavioral Foraging Responses of Prey to Predators Function Similarly in Restored and Pristine Foodwebs?. PLoS ONE, 2012, 7, e32390.	2.5	12
107	Describing ecosystem contexts with singleâ€species models: a theoretical synthesis for fisheries. Fish and Fisheries, 2017, 18, 264-284.	5.3	11
108	Disentangling the effects of fishing and environmental forcing on demographic variation in an exploited species. Biological Conservation, 2017, 209, 488-498.	4.1	11

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109	Quality of a fished resource: Assessing spatial and temporal dynamics. PLoS ONE, 2018, 13, e0196864.	2.5	11
110	Design tradeâ€offs in rightsâ€based management of smallâ€scale fisheries. Conservation Biology, 2019, 33, 361-368.	4.7	10
111	A Scientific Synthesis of Marine Protected Areas in the United States: Status and Recommendations. Frontiers in Marine Science, 2022, 9, .	2.5	10
112	Habitat complexity impacts persistence and species interactions in an intertidal whelk. Marine Biology, 2012, 159, 2867-2874.	1.5	9
113	â€˜Organization Scienceâ€™: A new prospective to assess marine protected areas effectiveness. Ocean and Coastal Management, 2015, 116, 443-448.	4.4	9
114	Effects of fish movement assumptions on the design of a marine protected area to protect an overfished stock. PLoS ONE, 2017, 12, e0186309.	2.5	9
115	Connecting Science to Policymakers, Managers, and Citizens. Oceanography, 2019, 32, 106-115.	1.0	9
116	Prepare developed democracies for long-run economic slowdowns. Nature Human Behaviour, 2021, 5, 1608-1621.	12.0	9
117	The scale of life and its lessons for humanity. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6328-6330.	7.1	8
118	Cooperation as a solution to shared resources in territorial use rights in fisheries. Ecological Applications, 2020, 30, e02022.	3.8	8
119	Status and trends of moored fish aggregating device (MFAD) fisheries in the Caribbean and Bermuda. Marine Policy, 2020, 121, 104148.	3.2	8
120	PISCO: Advances Made Through the Formation of a Large-Scale, Long-Term Consortium for Integrated Understanding of Coastal Ecosystem Dynamics. Oceanography, 2019, 32, 16-25.	1.0	7
121	Climate change and fishing are pulling the functional diversity of the world's largest marine fisheries to opposite extremes. Global Ecology and Biogeography, 0, , .	5.8	7
122	Forecasting fisheries collapse. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 15859-15860.	7.1	6
123	Factors driving the implementation of fishery reforms. Marine Policy, 2016, 71, 222-228.	3.2	6
124	Looking to aquatic species for conservation farming success. Conservation Letters, 2019, 12, e12681.	5.7	6
125	A novel marine spatial management tool for multiple conflicts recognition and optimization of marine functional zoning in the East China sea. Journal of Environmental Management, 2021, 298, 113506.	7.8	6
126	Removing biases in forecasts of fishery status. Journal of Bioeconomics, 2014, 16, 213-219.	3.3	5

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127	Latitude and protection affect decadal trends in reef trophic structure over a continental scale. Ecology and Evolution, 2020, 10, 6954-6966.	1.9	5
128	Halpern et al. reply. Nature, 2013, 495, E7-E7.	27.8	4
129	Ontogenetic shifts in predator diet drive tradeoffs between fisheries yield and strength of predator-prey interactions. Fisheries Research, 2018, 205, 11-20.	1.7	4
130	Variation in herbivore grazing behavior across Caribbean reef sites. Marine Biology, 2021, 168, 1.	1.5	4
131	Confronting Ambiguity in Science. The Science Teacher, 2015, 082, .	0.1	4
132	Reply to Le Pape et al.: Management is key to preventing marine extinctions. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E6275-E6276.	7.1	3
133	First report on the swim bladder index, proximate composition, and fatty acid analysis of swim bladder from cultured Totoaba macdonaldi fed compound aquafeeds. Aquaculture Reports, 2021, 21, 100901.	1.7	3
134	Evaluating Conditions for Moored Fish Aggregating Device Fisheries Development in the Caribbean and Bermuda. Frontiers in Marine Science, 2022, 9, .	2.5	3
135	Optimal harvest responses to environmental forecasts depend on resource knowledge and how it can be used. Canadian Journal of Fisheries and Aquatic Sciences, 2019, 76, 1495-1502.	1.4	2
136	Broadly inflicted stressors can cause ecosystem thinning. Theoretical Ecology, 2019, 12, 207-223.	1.0	2
137	Preparing Developed Democracies for Long-Run Economic Slowdowns. SSRN Electronic Journal, 0, , .	0.4	1
138	Reply to Ovando et al.: How connected are global fisheries?. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2100364118.	7.1	1
139	MAKING MOUNTAINS OUT OF BARNACLES: THE DYNAMICS OF ACORN BARNACLE HUMMOCKING. , 1998, 79, 1382.		1
140	Reply to Hilborn: Role of marine reserves depends on assumptions. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E10611.	7.1	1
141	The Science of Marine Reserves: A Series of Booklets and Graphics Connecting Science, Public Understanding, and Policy. Oceanography, 2019, 32, 104-105.	1.0	1
142	Reply to â€˜Achieving sustainable and equitable fisheries requires nuanced policies not silver bulletsâ€™. Nature Ecology and Evolution, 2018, 2, 1335-1335.	7.8	0
143	Trophic Redundancy and Predator Size Class Structure Drive Differences in Kelp Forest Ecosystem Dynamics. Bulletin of the Ecological Society of America, 2020, 101, e01682.	0.2	0
144	Reply to Hilborn: We agree that MPAs can improve fish catch in the South and Southeast Asia. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2100660118.	7.1	0