

Oscar Serrano

List of Publications by Year in descending order

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Version: 2024-02-01

82
papers

6,909
citations

76326

40
h-index

62596

80
g-index

89
all docs

89
docs citations

89
times ranked

5282
citing authors

#	ARTICLE	IF	CITATIONS
1	Seagrass ecosystems as a globally significant carbon stock. <i>Nature Geoscience</i> , 2012, 5, 505-509.	12.9	1,406
2	Global patterns in mangrove soil carbon stocks and losses. <i>Nature Climate Change</i> , 2017, 7, 523-528.	18.8	412
3	The future of Blue Carbon science. <i>Nature Communications</i> , 2019, 10, 3998.	12.8	406
4	Variability in the Carbon Storage of Seagrass Habitats and Its Implications for Global Estimates of Blue Carbon Ecosystem Service. <i>PLoS ONE</i> , 2013, 8, e73748.	2.5	324
5	A marine heatwave drives massive losses from the world's largest seagrass carbon stocks. <i>Nature Climate Change</i> , 2018, 8, 338-344.	18.8	318
6	Blue carbon as a natural climate solution. <i>Nature Reviews Earth & Environment</i> , 2021, 2, 826-839.	29.7	261
7	Sequestration of macroalgal carbon: the elephant in the Blue Carbon room. <i>Biology Letters</i> , 2018, 14, 20180236.	2.3	222
8	Effects of sample preparation on stable isotope ratios of carbon and nitrogen in marine invertebrates: implications for food web studies using stable isotopes. <i>Oecologia</i> , 2008, 157, 105-115.	2.0	161
9	Australian vegetated coastal ecosystems as global hotspots for climate change mitigation. <i>Nature Communications</i> , 2019, 10, 4313.	12.8	150
10	Assessing the risk of carbon dioxide emissions from blue carbon ecosystems. <i>Frontiers in Ecology and the Environment</i> , 2017, 15, 257-265.	4.0	145
11	Habitat characteristics provide insights of carbon storage in seagrass meadows. <i>Marine Pollution Bulletin</i> , 2018, 134, 106-117.	5.0	145
12	Reviews and syntheses: ^{210}Pb -derived sediment and carbon accumulation rates in vegetated coastal ecosystems "setting the record straight". <i>Biogeosciences</i> , 2018, 15, 6791-6818.	3.3	121
13	Influence of water depth on the carbon sequestration capacity of seagrasses. <i>Global Biogeochemical Cycles</i> , 2014, 28, 950-961.	4.9	114
14	Carbon sequestration by Australian tidal marshes. <i>Scientific Reports</i> , 2017, 7, 44071.	3.3	112
15	The renaissance of Odum's outwelling hypothesis in 'Blue Carbon' science. <i>Estuarine, Coastal and Shelf Science</i> , 2021, 255, 107361.	2.1	107
16	Role of carbonate burial in Blue Carbon budgets. <i>Nature Communications</i> , 2019, 10, 1106.	12.8	105
17	Seagrass meadows as a globally significant carbonate reservoir. <i>Biogeosciences</i> , 2015, 12, 4993-5003.	3.3	104
18	Addressing calcium carbonate cycling in blue carbon accounting. <i>Limnology and Oceanography Letters</i> , 2017, 2, 195-201.	3.9	100

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19	Very high-resolution seismoacoustic imaging of seagrass meadows (Mediterranean Sea): Implications for carbon sink estimates. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	99
20	Characterization of soils beneath a <i>Posidonia oceanica</i> meadow. <i>Geoderma</i> , 2012, 185-186, 26-36.	5.1	95
21	The <i>Posidonia oceanica</i> marine sedimentary record: A Holocene archive of heavy metal pollution. <i>Science of the Total Environment</i> , 2011, 409, 4831-4840.	8.0	92
22	Can mud (silt and clay) concentration be used to predict soil organic carbon content within seagrass ecosystems?. <i>Biogeosciences</i> , 2016, 13, 4915-4926.	3.3	92
23	Low Carbon sink capacity of Red Sea mangroves. <i>Scientific Reports</i> , 2017, 7, 9700.	3.3	87
24	Impact of mooring activities on carbon stocks in seagrass meadows. <i>Scientific Reports</i> , 2016, 6, 23193.	3.3	84
25	Climate change and Mediterranean seagrass meadows: a synopsis for environmental managers. <i>Mediterranean Marine Science</i> , 2014, 15, 462.	1.6	82
26	Fingerprinting Blue Carbon: Rationale and Tools to Determine the Source of Organic Carbon in Marine Depositional Environments. <i>Frontiers in Marine Science</i> , 2019, 6, .	2.5	75
27	Key biogeochemical factors affecting soil carbon storage in <i>Posidonia</i> meadows. <i>Biogeosciences</i> , 2016, 13, 4581-4594.	3.3	74
28	A national approach to greenhouse gas abatement through blue carbon management. <i>Global Environmental Change</i> , 2020, 63, 102083.	7.8	69
29	Opportunities for blue carbon strategies in China. <i>Ocean and Coastal Management</i> , 2020, 194, 105241.	4.4	60
30	Temperature effects on decomposition of a <i>Posidonia oceanica</i> mat. <i>Aquatic Microbial Ecology</i> , 2011, 65, 169-182.	1.8	60
31	Contribution of Seagrass Blue Carbon Toward Carbon Neutral Policies in a Touristic and Environmentally-Friendly Island. <i>Frontiers in Marine Science</i> , 2020, 7, .	2.5	51
32	Molecular composition of plant parts and sediment organic matter in a Mediterranean seagrass (<i>Posidonia oceanica</i>) mat. <i>Aquatic Botany</i> , 2016, 133, 50-61.	1.6	49
33	Acid washing effect on elemental and isotopic composition of whole beach arthropods: Implications for food web studies using stable isotopes. <i>Acta Oecologica</i> , 2008, 34, 89-96.	1.1	48
34	Glomalin accumulated in seagrass sediments reveals past alterations in soil quality due to land-use change. <i>Global and Planetary Change</i> , 2015, 133, 87-95.	3.5	48
35	Accumulation of Carbonates Contributes to Coastal Vegetated Ecosystems Keeping Pace With Sea Level Rise in an Arid Region (Arabian Peninsula). <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018, 123, 1498-1510.	3.0	48
36	Seagrass losses since mid-20th century fuelled CO ₂ emissions from soil carbon stocks. <i>Global Change Biology</i> , 2020, 26, 4772-4784.	9.5	48

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37	Palaeoecological potential of the marine organic deposits of <i>Posidonia oceanica</i> : A case study in the NE Iberian Peninsula. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2009, 271, 215-224.	2.3	46
38	Location and Associated Carbon Storage of Erosional Escarpments of Seagrass <i>Posidonia</i> Mats. <i>Frontiers in Marine Science</i> , 2016, 3, .	2.5	46
39	Millennial scale impact on the marine biogeochemical cycle of mercury from early mining on the Iberian Peninsula. <i>Global Biogeochemical Cycles</i> , 2013, 27, 21-30.	4.9	42
40	Long-term carbon storage and its recent loss in an estuarine <i>Posidonia australis</i> meadow (Albany, Tj ETQq0 0 0 rgBT/Overlock 10 Tf 50)	2.1	42
41	Carbon stocks and accumulation rates in Red Sea seagrass meadows. <i>Scientific Reports</i> , 2018, 8, 15037.	3.3	41
42	On the role of <i>Posidonia oceanica</i> beach wrack for macroinvertebrates of a Tyrrhenian sandy shore. <i>Acta Oecologica</i> , 2009, 35, 32-44.	1.1	38
43	Seagrass sediments reveal the long-term deterioration of an estuarine ecosystem. <i>Global Change Biology</i> , 2016, 22, 1523-1531.	9.5	35
44	Factors Determining Seagrass Blue Carbon Across Bioregions and Geomorphologies. <i>Global Biogeochemical Cycles</i> , 2021, 35, e2021GB006935.	4.9	34
45	Remobilization of Heavy Metals by Mangrove Leaves. <i>Frontiers in Marine Science</i> , 2018, 5, .	2.5	32
46	Reconstruction of centennial-scale fluxes of chemical elements in the Australian coastal environment using seagrass archives. <i>Science of the Total Environment</i> , 2016, 541, 883-894.	8.0	31
47	Radically different lignin composition in <i>Posidonia</i> species may link to differences in organic carbon sequestration capacity. <i>Organic Geochemistry</i> , 2018, 124, 247-256.	1.8	31
48	Conservation of Blue Carbon Ecosystems for Climate Change Mitigation and Adaptation. , 2019, , 965-996.		27
49	Deciphering the Unique Structure and Acylation Pattern of <i>Posidonia oceanica</i> Lignin. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 12521-12533.	6.7	24
50	National scale predictions of contemporary and future blue carbon storage. <i>Science of the Total Environment</i> , 2021, 800, 149573.	8.0	24
51	Effects of sample pre-treatment on the $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ values of living benthic foraminifera. <i>Chemical Geology</i> , 2008, 257, 218-220.	3.3	23
52	Impact of seagrass establishment, industrialization and coastal infrastructure on seagrass biogeochemical sinks. <i>Marine Environmental Research</i> , 2020, 160, 104990.	2.5	23
53	Soil Carbon Stocks Vary Across Geomorphic Settings in Australian Temperate Tidal Marsh Ecosystems. <i>Ecosystems</i> , 2021, 24, 319-334.	3.4	23
54	Seasonal response of <i>Posidonia oceanica</i> to light disturbances. <i>Marine Ecology - Progress Series</i> , 2011, 423, 29-38.	1.9	22

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55	A six thousand-year record of climate and land-use change from Mediterranean seagrass mats. <i>Journal of Ecology</i> , 2017, 105, 1267-1278.	4.0	21
56	Role of vegetated coastal ecosystems as nitrogen and phosphorous filters and sinks in the coasts of Saudi Arabia. <i>Environmental Research Letters</i> , 2020, 15, 034058.	5.2	21
57	Seagrass blue carbon stocks and sequestration rates in the Colombian Caribbean. <i>Scientific Reports</i> , 2021, 11, 11067.	3.3	19
58	Polyp bail-out by the coral <i>Astroides calycularis</i> (Scleractinia, Dendrophylliidae). <i>Marine Biodiversity</i> , 2018, 48, 1661-1665.	1.0	18
59	Deciphering organic matter sources and ecological shifts in blue carbon ecosystems based on molecular fingerprinting. <i>Science of the Total Environment</i> , 2020, 742, 140554.	8.0	18
60	Seagrass soil archives reveal centennial-scale metal smelter contamination while acting as natural filters. <i>Science of the Total Environment</i> , 2019, 649, 1381-1392.	8.0	17
61	Seagrass sedimentary deposits as security vaults and time capsules of the human past. <i>Ambio</i> , 2019, 48, 325-335.	5.5	17
62	Millennial-scale changes in the molecular composition of <i>Posidonia australis</i> seagrass deposits: Implications for Blue Carbon sequestration. <i>Organic Geochemistry</i> , 2019, 137, 103898.	1.8	15
63	Wildfires enhance phytoplankton production in tropical oceans. <i>Nature Communications</i> , 2022, 13, 1348.	12.8	15
64	Optimal soil carbon sampling designs to achieve cost-effectiveness: a case study in blue carbon ecosystems. <i>Biology Letters</i> , 2018, 14, 20180416.	2.3	14
65	Millennial-scale trends and controls in <i>Posidonia oceanica</i> (L. Delile) ecosystem productivity. <i>Global and Planetary Change</i> , 2018, 169, 92-104.	3.5	14
66	Utilization of carbon substrates by heterotrophic bacteria through vertical sediment profiles in coastal and estuarine seagrass meadows. <i>Environmental Microbiology Reports</i> , 2016, 8, 582-589.	2.4	13
67	Modeling Organic Carbon Accumulation Rates and Residence Times in Coastal Vegetated Ecosystems. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 3652-3671.	3.0	13
68	Challenges to select suitable habitats and demonstrate "additionality" in Blue Carbon projects: A seagrass case study. <i>Ocean and Coastal Management</i> , 2020, 197, 105295.	4.4	13
69	Current and future carbon stocks in coastal wetlands within the Great Barrier Reef catchments. <i>Global Change Biology</i> , 2021, 27, 3257-3271.	9.5	12
70	Impact of Marine Heatwaves on Seagrass Ecosystems. <i>Ecological Studies</i> , 2021, , 345-364.	1.2	12
71	Comment on "Geoengineering with seagrasses: is credit due where credit is given?". <i>Environmental Research Letters</i> , 2018, 13, 028002.	5.2	11
72	Organic chemistry insights for the exceptional soil carbon storage of the seagrass <i>Posidonia australis</i> . <i>Estuarine, Coastal and Shelf Science</i> , 2020, 237, 106662.	2.1	10

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73	Pedogenic Processes in a Posidonia oceanica Mat. Soil Systems, 2020, 4, 18.	2.6	9
74	Factors regulating primary producers' assemblages in Posidonia oceanica (L.) Delile ecosystems over the past 1800 years. Science of the Total Environment, 2020, 718, 137163.	8.0	8
75	Seagrass Meadows Provide 3D Habitat for Reef Fish. Frontiers in Marine Science, 2017, 4, .	2.5	6
76	Reconstruction of 7500 years of coastal environmental change impacting seagrass ecosystem dynamics in Oyster Harbour (SW Australia). Palaeogeography, Palaeoclimatology, Palaeoecology, 2020, 558, 109953.	2.3	6
77	Impacts of land-use change and urban development on carbon sequestration in tropical seagrass meadow sediments. Marine Environmental Research, 2022, 176, 105608.	2.5	6
78	Heterogeneous tidal marsh soil organic carbon accumulation among and within temperate estuaries in Australia. Science of the Total Environment, 2021, 787, 147482.	8.0	3
79	Fingerprinting macrophyte Blue Carbon by pyrolysis-GC-compound specific isotope analysis (Py-CSIA). Science of the Total Environment, 2022, 836, 155598.	8.0	3
80	Commentary: Evaluating the Role of Seagrass in Cenozoic CO2 Variations. Frontiers in Environmental Science, 2017, 5, .	3.3	2
81	Reef fish and turtles call seagrass home. Frontiers in Ecology and the Environment, 2020, 18, 166-166.	4.0	1
82	What publishing as a lead author has taught me. Nature, 2019, 576, 499-501.	27.8	0