

Greg Ivey

List of Publications by Year in descending order

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146
papers

5,979
citations

94433

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151
all docs

151
docs citations

151
times ranked

3398
citing authors

#	ARTICLE	IF	CITATIONS
1	On the Nature of Turbulence in a Stratified Fluid. Part I: The Energetics of Mixing. Journal of Physical Oceanography, 1991, 21, 650-658.	1.7	332
2	Density Stratification, Turbulence, but How Much Mixing?. Annual Review of Fluid Mechanics, 2008, 40, 169-184.	25.0	324
3	Parameterization of turbulent fluxes and scales using homogeneous sheared stably stratified turbulence simulations. Journal of Fluid Mechanics, 2005, 525, 193-214.	3.4	311
4	Vertical mixing due to the breaking of critical internal waves on sloping boundaries. Journal of Fluid Mechanics, 1989, 204, 479.	3.4	213
5	Experiments on mixing due to internal solitary waves breaking on uniform slopes. Journal of Geophysical Research, 1999, 104, 13467-13477.	3.3	210
6	The degeneration of internal waves in lakes with sloping topography. Limnology and Oceanography, 2005, 50, 1620-1637.	3.1	182
7	The degeneration of large-scale interfacial gravity waves in lakes. Journal of Fluid Mechanics, 2001, 434, 181-207.	3.4	178
8	Magma-mixing and the dynamics of withdrawal from stratified reservoirs. Journal of Volcanology and Geothermal Research, 1986, 27, 153-178.	2.1	177
9	On the Nature of Turbulence in a Stratified Fluid. Part II: Application to Lakes. Journal of Physical Oceanography, 1991, 21, 659-680.	1.7	172
10	High-frequency internal waves in large stratified lakes. Limnology and Oceanography, 2003, 48, 895-919.	3.1	135
11	Helium accumulation in groundwater. II: A model for the accumulation of the crustal ^4He degassing flux. Geochimica Et Cosmochimica Acta, 1985, 49, 2445-2452.	3.9	134
12	Experiments on transient natural convection in a cavity. Journal of Fluid Mechanics, 1984, 144, 389-401.	3.4	130
13	Measurements of diapycnal diffusivities in stratified fluids. Journal of Fluid Mechanics, 2001, 442, 267-291.	3.4	103
14	Flow separation and resuspension beneath shoaling nonlinear internal waves. Journal of Geophysical Research, 2009, 114, .	3.3	93
15	Disaggregation of <i>Microcystis aeruginosa</i> colonies under turbulent mixing: laboratory experiments in a grid-stirred tank. Hydrobiologia, 2004, 519, 143-152.	2.0	88
16	Boundary mixing in a stratified fluid. Journal of Fluid Mechanics, 1982, 121, 1.	3.4	82
17	Density and viscosity gradients in zoned magma chambers, and their influence withdrawal dynamics. Journal of Volcanology and Geothermal Research, 1986, 30, 201-230.	2.1	82
18	Upwelling on the south-west coast of Australia—source of the Capes Current?. Continental Shelf Research, 1999, 19, 363-400.	1.8	80

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19	Nearshore circulation in a tropical fringing reef system. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	80
20	Localized mixing due to a breaking internal wave ray at a sloping bottom. <i>Journal of Fluid Mechanics</i> , 1997, 350, 1-27.	3.4	79
21	The energetics of large-scale internal wave degeneration in lakes. <i>Journal of Fluid Mechanics</i> , 2005, 531, 159-180.	3.4	79
22	Turbulent mixing in a sloping benthic boundary layer energized by internal waves. <i>Journal of Fluid Mechanics</i> , 2000, 418, 59-76.	3.4	78
23	Hydraulics and mixing in controlled exchange flows. <i>Journal of Geophysical Research</i> , 2001, 106, 959-972.	3.3	72
24	Estimating turbulent kinetic energy dissipation using the inertial subrange method in environmental flows. <i>Limnology and Oceanography: Methods</i> , 2011, 9, 302-321.	2.0	71
25	Shoaling internal solitary waves. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 4111-4124.	2.6	67
26	Laboratory study of the interaction between two internal wave rays. <i>Journal of Fluid Mechanics</i> , 1997, 336, 91-122.	3.4	65
27	The Kelvin-Helmholtz to Holmboe instability transition in stratified exchange flows. <i>Journal of Fluid Mechanics</i> , 2003, 477, .	3.4	64
28	The variation of flow and turbulence across the sediment-water interface. <i>Journal of Fluid Mechanics</i> , 2017, 824, 413-437.	3.4	64
29	Axisymmetric withdrawal and inflow in a density-stratified container. <i>Journal of Fluid Mechanics</i> , 1985, 161, 115.	3.4	61
30	Steady convective exchange flows down slopes. <i>Aquatic Sciences</i> , 1999, 61, 260.	1.5	55
31	The tidal regime of Shark Bay, Western Australia. <i>Estuarine, Coastal and Shelf Science</i> , 2003, 57, 725-735.	2.1	49
32	A model of the vertical mixing in Lake Erie in summer. <i>Limnology and Oceanography</i> , 1984, 29, 553-563.	3.1	46
33	Turbulent mixing efficiency at an energetic ocean site. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 4662-4672.	2.6	45
34	Secondary circulation induced by flow curvature and Coriolis effects around headlands and islands. <i>Ocean Dynamics</i> , 2004, 54, 27-38.	2.2	43
35	Processes controlling the position of frontal systems in Shark Bay, Western Australia. <i>Estuarine, Coastal and Shelf Science</i> , 2005, 65, 463-474.	2.1	43
36	The variability of the large-amplitude internal wave field on the Australian North West Shelf. <i>Continental Shelf Research</i> , 2009, 29, 1373-1383.	1.8	43

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37	A Model for Mass Transport Across the Sediment-Water Interface. <i>Water Resources Research</i> , 2018, 54, 2799-2812.	4.2	39
38	Linear internal waves and the control of stratified exchange flows. <i>Journal of Fluid Mechanics</i> , 2001, 447, 357-375.	3.4	38
39	Numerical modelling of the mean flow characteristics of the Leeuwin Current System. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2007, 54, 837-858.	1.4	38
40	Quantifying Diapycnal Mixing in an Energetic Ocean. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 346-357.	2.6	37
41	Confronting Grand Challenges in environmental fluid mechanics. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	37
42	Hydrodynamic modelling of snapper <i>Pagrus auratus</i> egg and larval dispersal in Shark Bay, Western Australia: reproductive isolation at a fine spatial scale. <i>Marine Ecology - Progress Series</i> , 2003, 265, 213-226.	1.9	37
43	Simple mixing criteria for the growth of negatively buoyant phytoplankton. <i>Limnology and Oceanography</i> , 2003, 48, 1326-1337.	3.1	35
44	Internal tide dynamics in a topographically complex region: Browse Basin, Australian North West Shelf. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	35
45	Impact of windage on ocean surface Lagrangian coherent structures. <i>Environmental Fluid Mechanics</i> , 2017, 17, 473-483.	1.6	35
46	Boundary mixing in stratified reservoirs. <i>Journal of Fluid Mechanics</i> , 1993, 248, 477-491.	3.4	34
47	Convectively driven exchange in a shallow coastal embayment. <i>Continental Shelf Research</i> , 1999, 19, 1599-1616.	1.8	34
48	A weakly nonlinear model of long internal waves in closed basins. <i>Journal of Fluid Mechanics</i> , 2002, 467, 269-287.	3.4	34
49	A dissolved oxygen budget model for Lake Erie in summer. <i>Freshwater Biology</i> , 1985, 15, 683-694.	2.4	33
50	Near-inertial ocean response to tropical cyclone forcing on the Australian North West Shelf. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 7722-7751.	2.6	33
51	Environmental Factors and the Application of Hydrogen Peroxide for the Removal of Toxic Cyanobacteria from Waste Stabilization Ponds. <i>Journal of Environmental Engineering, ASCE</i> , 2011, 137, 952-960.	1.4	32
52	Observations of Large-Amplitude Mode-2 Nonlinear Internal Waves on the Australian North West Shelf. <i>Journal of Physical Oceanography</i> , 2019, 49, 309-328.	1.7	31
53	Unsteady, Turbulent Convection into a Rotating, Linearly Stratified Fluid: Modeling Deep Ocean Convection. <i>Journal of Physical Oceanography</i> , 1995, 25, 3032-3050.	1.7	30
54	Atmospheric forcing intensifies the effects of regional ocean warming on reef-scale temperature anomalies during a coral bleaching event. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 4600-4616.	2.6	30

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55	The role of boundary mixing in the deep ocean. <i>Journal of Geophysical Research</i> , 1987, 92, 11873-11878.	3.3	29
56	Boundary mixing in a rotating, stratified fluid. <i>Journal of Fluid Mechanics</i> , 1987, 183, 25-44.	3.4	29
57	The effects of tropical cyclone characteristics on the surface wave fields in Australia's North West region. <i>Continental Shelf Research</i> , 2017, 139, 35-53.	1.8	29
58	Determining Mixing Rates from Concurrent Temperature and Velocity Measurements. <i>Journal of Atmospheric and Oceanic Technology</i> , 2017, 34, 2283-2293.	1.3	29
59	Particle capture and low-Reynolds-number flow around a circular cylinder. <i>Journal of Fluid Mechanics</i> , 2012, 710, 362-378.	3.4	28
60	Convectively driven mixed layer growth in a rotating, stratified fluid. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 1995, 42, 331-349.	1.4	27
61	Seasonal circulation and temperature variability near the North West Cape of Australia. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	27
62	A numerical study of the dynamics of the wave-driven circulation within a fringing reef system. <i>Ocean Dynamics</i> , 2012, 62, 585-602.	2.2	27
63	Entrainment by bottom currents in Lake Erie. <i>Limnology and Oceanography</i> , 1982, 27, 1029-1038.	3.1	26
64	Dynamics of Turbidity Current with Reversing Buoyancy. <i>Journal of Hydraulic Engineering</i> , 1996, 122, 230-236.	1.5	26
65	Effect of Long Internal Waves on the Quality of Water Withdrawn from a Stratified Reservoir. <i>Journal of Hydraulic Engineering</i> , 2006, 132, 1134-1145.	1.5	26
66	Experiments on the generation of internal waves over continental shelf topography. <i>Journal of Fluid Mechanics</i> , 2010, 663, 385-400.	3.4	26
67	Estimating Turbulent Dissipation from Microstructure Shear Measurements Using Maximum Likelihood Spectral Fitting over the Inertial and Viscous Subranges. <i>Journal of Atmospheric and Oceanic Technology</i> , 2016, 33, 713-722.	1.3	26
68	Internal wave evolution in a space–time varying field. <i>Journal of Fluid Mechanics</i> , 2000, 424, 279-301.	3.4	25
69	A numerical model of wave- and current-driven nutrient uptake by coral reef communities. <i>Ecological Modelling</i> , 2011, 222, 1456-1470.	2.5	25
70	The combined influence of hydrodynamic forcing and calcification on the spatial distribution of alkalinity in a coral reef system. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	25
71	Observations of Enhanced Sediment Transport by Nonlinear Internal Waves. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088499.	4.0	25
72	The influence of rotation on shelf convection. <i>Journal of Fluid Mechanics</i> , 1998, 369, 23-48.	3.4	24

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73	Dynamics of the summer shelf circulation and transient upwelling off Ningaloo Reef, Western Australia. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 1099-1125.	2.6	24
74	Internal-Tide Spectroscopy and Prediction in the Timor Sea. <i>Journal of Physical Oceanography</i> , 2015, 45, 64-83.	1.7	24
75	Nutrient fluxes into an isolated coral reef atoll by tidally driven internal bores. <i>Limnology and Oceanography</i> , 2019, 64, 461-473.	3.1	23
76	Convection Near the Temperature of Maximum Density for High Rayleigh Number, Low Aspect Ratio, Rectangular Cavities. <i>Journal of Heat Transfer</i> , 1989, 111, 100-105.	2.1	22
77	Quantifying Lake Water Quality Evolution: Coupled Geochemistry, Hydrodynamics, and Aquatic Ecology in an Acidic Pit Lake. <i>Environmental Science & Technology</i> , 2017, 51, 9864-9875.	10.0	22
78	Mixing Driven by Breaking Nonlinear Internal Waves. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089591.	4.0	22
79	Convectively driven coastal currents in a rotating basin. <i>Journal of Marine Research</i> , 1988, 46, 473-494.	0.3	21
80	Particle capture by a circular cylinder in the vortex-shedding regime. <i>Journal of Fluid Mechanics</i> , 2013, 733, 171-188.	3.4	20
81	Resolving high-frequency internal waves generated at an isolated coral atoll using an unstructured grid ocean model. <i>Ocean Modelling</i> , 2018, 122, 67-84.	2.4	20
82	Unsteady convective exchange flows in cavities. <i>Journal of Fluid Mechanics</i> , 1998, 368, 127-153.	3.4	19
83	Submaximal exchange between a convectively forced basin and a large reservoir. <i>Journal of Fluid Mechanics</i> , 1999, 378, 357-378.	3.4	19
84	Stratification and mixing in sea straits. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2004, 51, 441-453.	1.4	19
85	A numerical study of the eddying characteristics of the Leeuwin Current System. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2008, 55, 261-276.	1.4	16
86	Near-Surface Wind-Induced Mixing in a Mine Lake. <i>Journal of Hydraulic Engineering</i> , 2008, 134, 1464-1472.	1.5	16
87	The dynamics of internal wave resonance in periodically forced narrow basins. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	16
88	On convective turbulence and the influence of rotation. <i>Dynamics of Atmospheres and Oceans</i> , 1997, 25, 217-232.	1.8	15
89	Cyanobacterial and microcystins dynamics following the application of hydrogen peroxide to waste stabilisation ponds. <i>Hydrology and Earth System Sciences</i> , 2013, 17, 2097-2105.	4.9	15
90	Density-ratio effects on the capture of suspended particles in aquatic systems. <i>Journal of Fluid Mechanics</i> , 2015, 783, 191-210.	3.4	15

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91	Buoyancy fluxes in a stratified fluid. Coastal and Estuarine Studies, 1998, , 377-388.	0.4	14
92	Convectively driven exchange flow in a stratified sill-enclosed basin. Journal of Fluid Mechanics, 2000, 418, 313-338.	3.4	14
93	Response Characteristics of a Buoyancy-Driven Sea. Journal of Physical Oceanography, 2001, 31, 2721-2736.	1.7	14
94	The temporal evolution of baroclinic basin-scale waves in a rotating circular basin. Journal of Fluid Mechanics, 2005, 523, 367-392.	3.4	14
95	Assessing internal and external controls on lake water quality: Limitations on organic carbon-driven alkalinity generation in acidic pit lakes. Water Resources Research, 2008, 44, .	4.2	14
96	Dynamics of a tidally-forced stratified shear flow on the continental slope. Journal of Geophysical Research, 2011, 116, .	3.3	14
97	Temporal variability of the standing internal tide in the Browse Basin, Western Australia. Journal of Geophysical Research, 2012, 117, .	3.3	14
98	Baroclinic geostrophic adjustment in a rotating circular basin. Journal of Fluid Mechanics, 2004, 515, 63-86.	3.4	13
99	The Hydrodynamic Response of the Sediment-Water Interface to Coherent Turbulent Motions. Geophysical Research Letters, 2018, 45, 10,520.	4.0	13
100	Convection in a long box driven by heating and cooling on the horizontal boundaries. Journal of Fluid Mechanics, 1996, 310, 61-87.	3.4	11
101	Numerical simulation of the summer wake of Rottnest Island, Western Australia. Dynamics of Atmospheres and Oceans, 2007, 43, 171-198.	1.8	11
102	The generation of internal waves by tidal flow over continental shelf/slope topography. Environmental Fluid Mechanics, 2008, 8, 511-526.	1.6	11
103	Observations of the shelf circulation dynamics along Ningaloo Reef, Western Australia during the austral spring and summer. Continental Shelf Research, 2015, 95, 54-73.	1.8	11
104	Contrasting Heat Budget Dynamics During Two La Niña Marine Heat Wave Events Along Northwestern Australia. Journal of Geophysical Research: Oceans, 2018, 123, 1563-1581.	2.6	11
105	Wave-current interactions in the continental shelf bottom boundary layer of the Australian North West Shelf during tropical cyclone conditions. Continental Shelf Research, 2018, 165, 78-92.	1.8	11
106	Experimental study on resonantly forced interfacial waves in a stratified circular cylindrical basin. Journal of Fluid Mechanics, 2007, 582, 203-222.	3.4	10
107	Modeling bed shear-stress fluctuations in a shallow tidal channel. Journal of Geophysical Research: Oceans, 2014, 119, 3185-3199.	2.6	10
108	Development of a new risk-based framework to guide investment in water quality monitoring. Environmental Monitoring and Assessment, 2014, 186, 2455-2464.	2.7	10

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109	Directional decomposition of internal tides propagating from multiple generation sites. Ocean Modelling, 2021, 162, 101801.	2.4	10
110	Ocean Transport Pathways to a World Heritage Fringing Coral Reef: Ningaloo Reef, Western Australia. PLoS ONE, 2016, 11, e0145822.	2.5	10
111	A laboratory investigation into shear-generated mixing in a salt wedge estuary. Geophysical and Astrophysical Fluid Dynamics, 1997, 85, 65-95.	1.2	9
112	Acquiring Long-Term Turbulence Measurements from Moored Platforms Impacted by Motion. Journal of Atmospheric and Oceanic Technology, 2016, 33, 2535-2551.	1.3	9
113	The Effects of Remote Internal Tides on Continental Slope Internal Tide Generation. Journal of Physical Oceanography, 2019, 49, 1651-1668.	1.7	9
114	The potential role of turbulence in modulating the migration of demersal zooplankton. Limnology and Oceanography, 2021, 66, 855-864.	3.1	9
115	Rossby number regimes for isolated convection in a homogeneous, rotating fluid. Dynamics of Atmospheres and Oceans, 1999, 30, 149-171.	1.8	8
116	Examining shifts in zooplankton community variability following biological invasion. Limnology and Oceanography, 2013, 58, 399-408.	3.1	7
117	Biophysical characteristics of a morphologically-complex macrotidal tropical coastal system during a dry season. Estuarine, Coastal and Shelf Science, 2014, 149, 96-108.	2.1	7
118	Observations of Diurnal Coastal-Trapped Waves with a Thermocline-Intensified Velocity Field. Journal of Physical Oceanography, 2019, 49, 1973-1994.	1.7	7
119	Generation and Propagation of Near-Inertial Waves in a Baroclinic Current on the Tasmanian Shelf. Journal of Physical Oceanography, 2019, 49, 2653-2667.	1.7	7
120	Cylinder wakes in shallow oscillatory flow: the coastal island wake problem. Journal of Fluid Mechanics, 2019, 874, 158-184.	3.4	7
121	Roles of Shear and Convection in Driving Mixing in the Ocean. Geophysical Research Letters, 2021, 48, e2020GL089455.	4.0	7
122	Dying to find the source – the use of rhodamine WT as a proxy for soluble point source pollutants in closed pipe surface drainage networks. Hydrology and Earth System Sciences, 2009, 13, 2169-2178.	4.9	6
123	The combined effect of transient wind-driven upwelling and eddies on vertical nutrient fluxes and phytoplankton dynamics along Ningaloo Reef, Western Australia. Journal of Geophysical Research: Oceans, 2016, 121, 4994-5016.	2.6	6
124	Field Investigation of Selective Withdrawal. Journal of Hydraulic Engineering, 1978, 104, 1225-1237.	0.2	6
125	Mean and Turbulent Characteristics of a Bottom Mixing Layer Forced by a Strong Surface Tide and Large Amplitude Internal Waves. Journal of Geophysical Research: Oceans, 2022, 127, .	2.6	6
126	Breaking of super-critically incident internal waves at a sloping bed. Coastal and Estuarine Studies, 1998, , 475-484.	0.4	5

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127	A Seasonal Harmonic Model for Internal Tide Amplitude Prediction. Journal of Geophysical Research: Oceans, 2021, 126, e2021JC017570.	2.6	5
128	Calibrated Suspended Sediment Observations Beneath Large Amplitude Non-Linear Internal Waves. Journal of Geophysical Research: Oceans, 2021, 126, e2021JC017538.	2.6	5
129	Determining Near-Bottom Fluxes of Passive Tracers in Aquatic Environments. Geophysical Research Letters, 2018, 45, 2716-2725.	4.0	4
130	Uncertainty Quantification of Density and Stratification Estimates with Implications for Predicting Ocean Dynamics. Journal of Atmospheric and Oceanic Technology, 2019, 36, 1313-1330.	1.3	4
131	Three-dimensionality of shallow island wakes. Environmental Fluid Mechanics, 2019, 19, 1393-1416.	1.6	4
132	Estimation of a characteristic friction velocity in stirred benthic chambers. Marine Ecology - Progress Series, 2004, 279, 291-295.	1.9	4
133	Investigating transport in a tidally driven coral atoll flow using Lagrangian coherent structures. Limnology and Oceanography, 2021, 66, 4017-4027.	3.1	4
134	The temporal evolution of a geostrophic flow in a rotating stratified basin. Dynamics of Atmospheres and Oceans, 2005, 39, 189-210.	1.8	2
135	Observations of bottom intensification of temperature and velocity fluctuations induced by oblique tidal interactions with a slope. Marine and Freshwater Research, 2006, 57, 255.	1.3	2
136	Uncovering Fine-Scale Wave-Driven Transport Features in a Fringing Coral Reef System via Lagrangian Coherent Structures. Fluids, 2020, 5, 190.	1.7	2
137	On continental shelf convection: The influence of an ideal coast. Journal of Geophysical Research, 1998, 103, 15643-15656.	3.3	1
138	The effects of a surface stress-driven ambient circulation on open ocean convection. Geophysical and Astrophysical Fluid Dynamics, 1999, 91, 199-222.	1.2	1
139	Estimation of the rate of dissipation of turbulent kinetic energy and turbulent lengthscales in grid-generated turbulence. Experiments in Fluids, 2003, 34, 607-615.	2.4	1
140	Estimating net transport and mixing using a time-dependent inverse method. Journal of Geophysical Research, 2008, 113, .	3.3	1
141	Tides and Internal Waves on the Continental Shelf. , 2011, , 225-235.		1
142	Two Intersecting Internal Wave Rays: a Comparison Between Numerical and Laboratory Results. Coastal and Estuarine Studies, 0, , 241-250.	0.4	0
143	Buoyancy driven flows in a rotating, stratified fluid. , 1994, , .		0
144	Coexistence of order and chaos in C major. Physical Review Fluids, 2018, 3, .	2.5	0

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145	Local winds and encroaching currents drive summertime subsurface blooms over a narrow shelf. Limnology and Oceanography, 0, , .	3.1	0
146	On predicting particle capture rates in aquatic ecosystems. PLoS ONE, 2021, 16, e0261400.	2.5	0