Gavin J Macaulay

List of Publications by Year
in descending order

Version: 2024-02-01

41 papers	1,185 citations	516710 16 h-index	395702 33 g-index
44 all docs	44 docs citations	44 times ranked	1112 citing authors

#	Article	IF	Citations
1	Mesoscale Eddies Are Oases for Higher Trophic Marine Life. PLoS ONE, 2012, 7, e30161.	2.5	190
2	Mapped Wave Envelope Elements for Acoustical Radiation and Scattering. Journal of Sound and Vibration, 1994, 170, 97-118.	3.9	150
3	Three-dimensional wave-envelope elements of variable order for acoustic radiation and scattering. Part I. Formulation in the frequency domain. Journal of the Acoustical Society of America, 1998, 103, 49-63.	1.1	109
4	Acoustic identification of marine species using a feature library. Methods in Oceanography, 2016, 17, 187-205.	1.6	80
5	Towards an acousticâ€based coupled observation and modelling system for monitoring and predicting ecosystem dynamics of the open ocean. Fish and Fisheries, 2013, 14, 605-615.	5.3	66
6	Comparisons among ten models of acoustic backscattering used in aquatic ecosystem research. Journal of the Acoustical Society of America, 2015, 138, 3742-3764.	1.1	60
7	Distribution, abundance and acoustic properties of Antarctic silverfish (Pleuragramma antarcticum) in the Ross Sea. Deep-Sea Research Part II: Topical Studies in Oceanography, 2011, 58, 181-195.	1.4	50
8	A requiem for the use of 20 log10 Length for acoustic target strength with special reference to deep-sea fishes. ICES Journal of Marine Science, 2003, 60, 419-428.	2.5	47
9	Marine ecosystem acoustics (MEA): quantifying processes in the sea at the spatio-temporal scales on which they occur. ICES Journal of Marine Science, 2014, 71, 2357-2369.	2.5	47
10	Measurement and visual verification of fish target strength using an acoustic-optical system attached to a trawlnet. ICES Journal of Marine Science, 2009, 66, 1238-1244.	2.5	44
11	Acoustic surveys of euphausiids and models of baleen whale distribution in the Barents Sea. Marine Ecology - Progress Series, 2015, 527, 13-29.	1.9	28
12	Target strength of an oily deep-water fish, orange roughy (Hoplostethus atlanticus) I. Experiments. Journal of the Acoustical Society of America, 1999, 106, 131-142.	1.1	27
13	Experimental Evidence of Threat-Sensitive Collective Avoidance Responses in a Large Wild-Caught Herring School. PLoS ONE, 2014, 9, e86726.	2.5	24
14	In situ measurements of target strength with optical and model verification: a case study for blue grenadier, Macruronus novaezelandiae. ICES Journal of Marine Science, 2011, 68, 1986-1995.	2.5	22
15	Species identification in seamount fish aggregations using moored underwater video. ICES Journal of Marine Science, 2012, 69, 648-659.	2.5	18
16	Estimating target strength and physical characteristics of gas-bearing mesopelagic fish from wideband in situ echoes using a viscous-elastic scattering model. Journal of the Acoustical Society of America, 2021, 149, 673-691.	1.1	17
17	Using fish-processing time to carry out acoustic surveys from commercial vessels. ICES Journal of Marine Science, 2005, 62, 295-305.	2.5	16
18	Identification and target strength of orange roughy (Hoplostethus atlanticus) measuredin situ. Journal of the Acoustical Society of America, 2013, 134, 97-108.	1.1	14

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19	In situ target strength estimates of visually verified orange roughy. ICES Journal of Marine Science, 2013, 70, 215-222.	2.5	14
20	Estimates of net volume available for fish shoals during commercial mackerel (Scomber scombrus) purse seining. Fisheries Research, 2015, 161, 244-251.	1.7	14
21	Accuracy of the Kirchhoff-Approximation and Kirchhoff-Ray-Mode Fish Swimbladder Acoustic Scattering Models. PLoS ONE, 2013, 8, e64055.	2.5	14
22	Target strength of southern blue whiting (Micromesistius australis) using swimbladder modelling, split beam and deconvolution. ICES Journal of Marine Science, 1998, 55, 482-493.	2.5	13
23	Behaviours of Atlantic herring and mackerel in a purse-seine net, observed using multibeam sonar. ICES Journal of Marine Science, 2017, 74, 359-368.	2.5	12
24	An acoustic method to observe the distribution and behaviour of mesopelagic organisms in front of a trawl. Deep-Sea Research Part II: Topical Studies in Oceanography, 2020, 180, 104873.	1.4	12
25	Remote sizing of fish-like targets using broadband acoustics. Fisheries Research, 2020, 228, 105568.	1.7	12
26	ANATOMICALLY DETAILED ACOUSTIC SCATTERING MODELS OF FISH. Bioacoustics, 2002, 12, 275-277.	1.7	11
27	Instantaneous areal population density of entire Atlantic cod and herring spawning groups and group size distribution relative to total spawning population. Fish and Fisheries, 2019, 20, 201-213.	5.3	9
28	Nonlinear crosstalk in broadband multi-channel echosounders. Journal of the Acoustical Society of America, 2021, 149, 87-101.	1.1	9
29	A revised target strengthâ€“length estimate for blue whiting (Micromesistius poutassou): implications for biomass estimates. ICES Journal of Marine Science, 2011, 68, 2222-2228.	2.5	8
30	A least squares method of estimating length to target strength relationships from in situ target strength distributions and length frequencies. Journal of the Acoustical Society of America, 2001, 109, 155-163.	1.1	7
31	Field measurements of acoustic absorption in seawater from 38 to 360 kHz. Journal of the Acoustical Society of America, 2020, 148, 100-107.	1.1	7
32	The reaction of a captive herring school to playbacks of a noise-reduced and a conventional research vessel. Canadian Journal of Fisheries and Aquatic Sciences, 2015, 72, 491-499.	1.4	5
33	Comparisons of echo-integration performance from two multiplexed echosounders. ICES Journal of Marine Science, 2018, 75, 2276-2285.	2.5	5
34	Diel vertical movements determine spatial interactions between cod, pelagic fish and krill on an Arctic shelf bank. Marine Ecology - Progress Series, 2020, 638, 13-23.	1.9	5
35	Practical calibration of ship-mounted omni-directional fisheries sonars. Methods in Oceanography, 2016, 17, 206-220.	1.6	4
36	Progress in determining southern blue whiting (Micromesistius australis) target strength: results of swimbladder modelling. ICES Journal of Marine Science, 2006, 63, 952-955.	2.5	3

#	Article	IF	Citations
37	Acoustic Methods of Monitoring Antarctic Silverfish Distribution and Abundance. Advances in Polar Ecology, 2017, , 237-252.	1.3	3
38	Effects of sphere suspension on echosounder calibrations. ICES Journal of Marine Science, 2020, 77, 2945-2953.	2.5	2
39	Estimating individual fish school biomass using digital omnidirectional sonars, applied to mackerel and herring. ICES Journal of Marine Science, 2021, 78, 940-951.	2.5	2
40	Measuring fish and zooplankton with a broadband split beam echo sounder. , 2013, , .		1
41	Corrigendum to: Estimating individual fish school biomass using digital omnidirectional sonars, applied to mackerel and herring. ICES Journal of Marine Science, 2021, 78, 1174-1174.	2.5	0