SUPPLEMENTARY MATERIALS FOR

SEA GRANT RESEARCH FUNDING

ADVANCING THE SCIENTIFIC DISCOURSE BY ADDRESSING LOCAL RESEARCH PRIORITIES

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TABLE S1. The 10 most-cited Sea Grant research publications in the data set.

ARTICLE	CITATIONS
Wang, M., J.J. Carver, V.V. Phelan, L.M. Sanchez, N. Garg, Y. Peng, D.D. Nguyen, J. Watrous, C.A. Kapono, T. Luzzatto-Knaan, and others. 2016. Sharing and community curation of mass spectrometry data with Global Natural Products Social Molecular Networking. *Nature Biotechnology* 34(8):828–837, https://doi.org/10.1038/nbt.3597.	2,043
Pandolfi, J.M., R.H. Bradbury, E. Sala, T.P. Hughes, K.A. Bjorndal, R.G. Cooke, D. McArdle, L. McClenachan, M.J. Newman, G. Paredes, and R.R. Warner. 2003. Global trajectories of the long-term decline of coral reef ecosystems. *Science* 301(5635):955–958, https://doi.org/10.1126/science.1085706.	1,463
Breitburg, D., L.A. Levin, A., Oschlies, M. Grégoire, F.P. Chavez, D.J. Conley, V. Garçon, D. Gilbert, D. Gutiérrez, K. Isensee, and G.S. Jacinto. 2018. Declining oxygen in the global ocean and coastal waters. *Science* 359(6371):eaam7240, https://doi.org/10.1126/science.aam7240.	1,283
Paerl, H.W., and V.J. Paul. 2012. Climate change: Links to global expansion of harmful cyanobacteria. *Water Research* 46(5):1,349–1,363, https://doi.org/10.1016/j.watres.2011.08.002.	1,142
Paerl, H.W., and T.G. Otten. 2013. Harmful cyanobacterial blooms: Causes, consequences, and controls. *Microbial Ecology* 65:995–1,010, https://doi.org/10.1007/s00248-012-0159-y.	1,071
Paerl, H.W., and J. Huisman. 2009. Climate change: A catalyst for global expansion of harmful cyanobacterial blooms. *Environmental Microbiology Reports* 1(1):27–37, https://doi.org/10.1111/j.1758-2229.2008.00004.x.	1,049
Bauer, J.E., W.J. Cai, P.A. Raymond, T.S. Bianchi, C.S. Hopkinson, and P.A. Regnier. 2013. The changing carbon cycle of the coastal ocean. *Nature* 504(7478):61–70, https://doi.org/10.1038/nature12857.	989
Michalak, A.M., E.J. Anderson, D. Beletsky, S. Boland, N.S. Bosch, T.B. Bridgeman, J.D. Chaffin, K. Cho, R. Confesor, I. Daloğlu, and J.V. DePinto. 2013. Record-setting algal bloom in Lake Erie caused by agricultural and meteorological trends consistent with expected future conditions. *Proceedings of the National Academy of Sciences of the United States of America* 110(16):6,448–6,452, https://doi.org/10.1073/pnas.1216006110.	945
O'Reilly, C.M., S. Sharma, D.K. Gray, S.E. Hampton, J.S. Read, R.J. Rowley, P. Schneider, J.D. Lenters, P.B. McIntyre, B.M. Kraemer, and G.A. Weyhenmeyer. 2015. Rapid and highly variable warming of lake surface waters around the globe. *Geophysical Research Letters* 42(24):10,773-10,781, https://doi.org/10.1002/2015GL066235.	798
Paerl, H.W., N.S. Hall, and E.S. Calandrino. 2011. Controlling harmful cyanobacterial blooms in a world experiencing anthropogenic and climatic-induced change. *Science of the Total Environment* 409(10):1,739–1,745, https://doi.org/10.1016/j.scitotenv.2011.02.001.	788

TABLE S2. The 20 most common bigrams in abstracts from 5,018 Sea Grant articles published between 1991 and 2022.

BIGRAM	TIMES APPEARING	MEDIAN YEAR APPEARING (RANGE)
climate change	800	2019 (2008–2022)
sea level	586	2018 (2000–2022)
water quality	542	2017 (1992–2022)
level rise	390	2018 (2002–2022)
water column	385	2016 (1992–2022)
organic matter	351	2017 (2001–2022)
Chesapeake Bay	350	2017 (1992–2022)
Lake Erie	306	2016 (1992–2022)
life history	296	2015 (1991–2022)
environmental conditions	258	2018 (1991–2022)
North Carolina	256	2016 (1992–2022)
Lake Michigan	236	2017 (1991–2022)
growth rates	233	2015 (1992–2022)
time series	223	2017 (1994–2022)
dissolved oxygen	216	2017 (1998–2022)
ecosystem services	214	2018 (2003–2022)
food web	211	2016 (1996–2022)
North America	204	2016 (1999–2022)
organic carbon	203	2018 (1997–2022)
salt marsh	198	2017 (2008–2022)

TABLE S3. The 20 most common author-supplied keywords from 7,423 Sea Grant articles published between 2008 and 2023.

KEYWORD	TIMES USED	TOP FIVE BIGRAMS FROM ARTICLE ABSTRACTS WITH THESE KEYWORDS
climate change	241	climate change (306 uses); sea level (89); level rise (60); water quality (31); future climate (26)
aquaculture	115	shellfish aquaculture (31); striped bass (23); oyster aquaculture (21); climate change (20); *Crassostrea virginica* (20)
invasive species	104	invasive species (56); North America (23); Lake Michigan (17); round gobies (16); blue catfish (14); climate change (14)
estuary	101	water column (17); river estuary (15); dissolved oxygen (14); water quality (14); climate change (13); bay estuary (12); organic matter (12)
restoration	89	oyster reefs (21); water quality (18); ecosystem services (17); oyster density (15); dissolved oxygen (14); Chesapeake Bay (13); sea level (13)
eutrophication	88	Lake Erie (38); water quality (35); water column (21); climate change (19); nutrient enrichment (16)
Crassostrea virginica	87	*Crassostrea virginica* (60); eastern oyster (45); oyster *Crassostrea* (43); oyster reefs (29); low salinity (19); oyster populations (19)
water quality	86	water quality (103); climate change (23); Chesapeake Bay (14); Lake Erie (14); remote sensing (13)
Great Lakes	85	Lake Michigan (47); Lake Erie (29); water level (26); climate change (24); round goby (21)
oyster	82	Crassostrea virginica (39); oyster Crassostrea (34); eastern oyster (25); pacific oyster (17); oyster populations (16)
nitrogen	80	organic matter (24); water quality (23); water column (18); organic carbon (15); mu mol (14); nutrient enrichment (14)
ocean acidification	79	ocean acidification (93); elevated pco (42); mu atm (42); low ph (40); climate change (32)
hypoxia	78	dissolved oxygen (62); hypoxic conditions (33); low oxygen (27); climate change (18); Green Bay (16)
salinity	72	low salinity (26); sea level (18); climate change (17); saltwater intrusion (16); level rise (15)
nutrients	68	water quality (47); nutrient concentrations (22); water column (20); climate change (14); total phosphorus (13)
salt marsh	68	salt marsh (12)1; sea level (49); level rise (26); mangrove cover (20); organic matter (20)
temperature	68	water temperature (19); 20 degrees (14); 10 degrees (12); 12 degrees (12); 30 degrees (12)
Chesapeake Bay	65	Chesapeake Bay (84); striped bass (21); sea level (15); water quality (15); water column (10)
fisheries	65	climate change (20); fisheries management (16); hg concentrations (11); marine protected (11); opportunity cost (10)
Gulf of Mexico	61	red snapper (17); northern gulf (14); red grouper (13); osmose wfs (11); Vibrio spp (11)