Publications

141 peer-reviewed papers (137) and book chapters (4)
Citation summary: h-Index 47, i10-index 101, 9348 citations (based on 138 manuscripts in Google Scholar, 01-07-2026)

Peer-Reviewed Papers

2026 *(14)*

1. Ketzler, M., Jakobsson, M., Faehnrich, K., Akhoudas, C., Prytherch, J., Chang, C., Yu, C.X., Sundberg, M., Drake, H., Lattaud, J., **O'Regan, M.**, Kirchner, N., and Stranne, C. (*in press*). Glacial meltwater from the North of Greenland ice sheet contains less methane than expected. *Nature Communications*.
2. Tessin, A., Marz, C., Faust, J., Boning, P., Forwick, M., Matthiessen, J., Neumann, A., **O'Regan, M.**, Schnetger, B., and Vogt, C., (*in press*). Barents-Svalbard Ice Sheet instability enhanced delivery of bioavailable iron to the ocean. *Nature Communications*.
3. Coxall, H., Cronin, T.M., Darling, K., Husum, K., Handl, T., Huber, B.T., Kanvinde, M., Razmjooie, M., Vermassen, F., Volker, A., Weikamp, T., and **O'Regan, M.**, (*in press*). Quaternary Arctic Planktonic Foraminifera: Morphological differentiation and Taxonomic Reassessment of Subpolar Spinose Taxa. *Journal of Micropalaeontology*
4. **O'Regan, M.**, Jakobsson, M., and Moran, K., (2026). Did the Central Arctic become a sediment-starved basin in the Quaternary? *Marine Geology,* 494, 107729. doi: 10.1016/j.margeo.2026.107729
5. Jakobsson, M., Kirchner, N., Nilsson, J., Stranne, C., Mayer, L., Barnett, J., Holmes, F., Calder, B., Deutsch, C., de Boer, A., Coxall, H. K., Faehnrich, H., Hong, W-L., Hopper, J., Ketzer, M., Noormets, R., **O'Regan, M.**, Rolleberg, N., Ross, N., Sigray, P., Strandell Erstorp, E., Weidner, L., wang, Z., and GEOEO 2024 Shipboard Scientific Party, (2026). Atlantic water access and the break-up of the C.H. Ostenfeld Gletsjer ice tongue, Northwest Greenland. *Communications Earth & Environment*, 7, 493. Doi:10.1038/s43247-026-03666-x
6. Jang, K., Bayon, G., Han, Y., Joe, J.J., Jun, S-J., Son, Y, J., Matthiessen, J., **O'Regan, M.**, Vogt, C., Stein, R., Sakamoto, T., Byun, E., Woo, K. S., Nam, S-I, (2026). Mid-Pleistocene Transition linked to Arctic seaway expansion. *Communications Earth & Environment*, 7, 449. Doi: 10.1038/s43247-026-03570-4
7. Razmjooie, M.J., Spielhagen, R.F., Bauch, H., Vermassen, F., Jakobsson, M., and **O'Regan, M.**, (2026). Evaluating the reliability of radiocarbon chronologies in Arctic Ocean sediments using calcareous nannofossil bioevents. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 695, 113847. DOI: 10.1016/j.palaeo.2026.113847
8. Ståhl, E., **O'Regan, M.**, Feinauer, S., Heintzman, P., Johnsson, E., Razmjooie, M., and Linderholm, A., (2026). Testing a novel genomic-based approach for Arctic Ocean Biostratigraphy. *Marine Micropaleontology*, 204, 102573. doi: 10.1016/j.marmicro.2026.102573.
9. Martens, J., Hönisch, B., Coxall, H.K., **O'Regan, M.**, Vermassen, F., Jakobsson, M., Yan, B., and Hurley, S., (2026). Towards understanding archaeal lipid

biomarker (GDGT) distributions in central Arctic Ocean sediments. *Geochimica et Cosmochimica Acta*. doi:10.1016/j.gca.2026.04.019

10. Sicard, M., De Boer, A.M., Coxall, C., Koenigk, T., Karami, M.P., Navarro-Labastida, R.G., Jakobsson, M., **O'Regan, M.**, and Vermassen, F., (2026). Variations in Arctic Ocean Dynamics and Hydrography under Early Last Interglacial and Future Warmings. *Paleoceanography and Paleoclimatology*, 41, e2025PA005247. doi: 10.1029/2025PA005247
11. Möller, P., Hammarlund, D., Ljung, K., **O'Regan, M**., Hoff, L., Ståhl, E., and Jakobsson, M., (2026). Holocene subaqueous landslide dynamics in association with the deep channel across the Lake Siljan-Orsasjön Basin, south-central Sweden. *Earth Surf. Process. Landforms, 51:e70279.* doi: 10.1002/esp.70279 doi: 10.1002/esp.70279
12. Wijnands, F.M., **O'Regan, M.**, Coxall, H., and Heintzman, P., (2026) Sedimentary ancient DNA as a proxy to understand Arctic Ocean Palaeoecology and Palaeoenvironments. *Marine Micropaleontology,* 203. doi: 10.1016/j.marmicro.2026.102543
13. Santos, M., Bröder, L., **O'Regan, M.**, Hernandez, I., Tesi, T., Bigler, L., Haghipour, N., Nelson, D.B., and Lattaud, J., (2026). Holocene sea ice and paleoenvironment conditions in the Beaufort Sea (Canadian Arctic) using lipid biomarkers. *Climate of the Past*. 22, 187-203. doi: 10.5194/cp-22-187-2026
14. Shi, D., Xiao, W., **O'Regan, M.**, Polyak, L., Wang, R., Wu, L., and Xu, R. (2026). Pleistocene sediment transport dynamics in the western Arctic Ocean. *Global and Planetary Change*, 257, 105262. doi: 10.1016/j.gloplacha.2025.105262

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15. Vonk, J., Fritz, M., Speetjans, N. J., Babin, M., Bartsch, M., Basso, L., Bröder, L., Göckede, M., Gustafsson, Ö., Hugelius, G., Irrgang, A. M., Juhls, B., Kuhn, M. A., Lantuit, H., Manizza, M., Martens, J., **O'Regan, M.**, Suslova, A., Tank, S. E., Terhaar, J., and Zolkos, S., (2025). The land-ocean Arctic carbon cycle. *Nature Reviews - earth and environment*, 6, 86-105. doi: 10.1038/s43017-024-00627-w
16. Schreiber, L., Ribeiro, S., Jackson, R., Kvorning, A.B., Nota, K., **O'Regan, M.**, Pearce, C., Seersholm, F., Seidenkrantz, M-S., Zimmermann, H. H., Lorenzen, E. D., (2025). Holocene shifts in marine mammal distributions around Northern Greenland revealed by sedimentary ancient DNA. *Nature Communications*, 16, 4543, doi: 10.1038/s41467-025-59731-0
17. Barnett, J., Holmes, F. A., Cuzzone, J., Åkesson, H., Morlighem, M., **O'Regan, M.**, Nilsson, J., Kirchner, N., and Jakobsson, M., (2025). Simulating the Holocene evolution of Ryder Glacier, North Greenland. *The Cryosphere*, doi: 10.5194/egusphere-2025-653, 2025.
18. Knies, J., **O'Regan, M.**, and Marcel, C. H., (2025). Finding consensus on Arctic Ocean climate history. *Eos*, 106, https://doi.org/10.1029/2025EO250230.

2024 *(5)*

19. Razmjooei, M. J., and **O'Regan, M.**, (2024). Improved paired light and scanning electron microscope imaging technique for identifying nannofossils in Arctic sediments. *Geobios*, 87, 45-56. doi: 10.1016/j.geobios.2024.08.016

20. Chen, N.-C., **O'Regan, M.**, Hong, W.-L., Andrén, T., Rodellas, V., Roth, F., Mörth, C.-M., Regnéll, C., Marxen, H.S., ten Hietbrink, S., Huang, T.-H., Gyllencreautz, R., Stranne, C., Linderholm, A., Garcia-Orellana, J., Humborg, C., Jakobsson, M., (2024). Investigation of submarine groundwater discharge into the Baltic Sea through varved glacial clays. *Continental Shelf Research*, 282, 105337. doi: 10.1016/j.csr.2024.105337
21. Jakobsson, M., **O'Regan, M.**, Sköld, M., Jonsson, P., and Bradshaw, C., (2024). The influence of seabed geology on the nature and preservation of bottom trawl marks in the Bornholm Basin, southern Baltic Sea. *Continental Shelf Research*. 279. doi: 10.1016/j.csr.2024.105297
22. Lepp, A. P., Miller, L. E., Anderson, J. B., **O'Regan, M.**, Winsborrow, M. C. M., Smith, J. A., Hillenbrand, C.-D., Wellner, J. S., Prothro, L. O., and Podolskiy, E. A., (2024). Insights into glacial processes from micromorphology of silt-sized sediment. *The Cryosphere*, 18, 2297–2319, doi:10.5194/tc-18-2297-2024
23. Pérez, L.Z., Knutz, P.C., Hopper, J.R., Seidenkrantz, M.S., **O'Regan, M.**, and Jones, S., (2024). NorthGreen: unlocking records from sea to land in Northeast Greenland. *Scientific Drilling*, 33, (1), 33-46, doi:10.5194/sd-33-33-2024, 2024.

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24. Vermassen, F., **O'Regan, M.**, de Boer, A., Schenk, F., Razmjooei, M., West, G., Cronin, T, Jakobsson, M., and Coxall, H.K., (2023). A seasonally ice-free Arctic Ocean during the Last Interglacial. *Nature Geoscience*, doi:10.1038/s41561-023-01227-x
25. Detlef, H., **O'Regan, M.**, Stranne, C., Jensen, M.M., Glasius, M., Cronin, T. M., Jakobsson, M., and Pearce, C. (2023). Seasonal sea ice in the Arctic's last ice area during the Early Holocene. *Communications Climate and Environment*, 4, 86, doi: 10.1038/s43247-023-00720-w
26. Razmjooei, M. J., Henderiks, J., Coxall, H., Baumann, H-K., Vermassen, F., Jakobson, M., and **O'Regan, M.**, (2023). Revision of the Quaternary calcareous nannofossil biochronology of Arctic Ocean sediments. *Quaternary Science Reviews,* 321, 108382. doi: 10.1016/j.quascirev.2023.108382
27. West, G., Kaufman, D. S., Jakobsson, M., and **O'Regan, M.**, (2023). Amino acid racemization in *Neogloboquadrina pachyderma* and *Cibicidoides wuellerstorfi* from the Arctic Ocean and its implications for age models, *Geochronology*, 5, 285–299, doi: 10.5194/gchron-5-285-2023
28. Sicard, M., de Boer, A. M., Coxall, H. K., Koenigk, T., Karami, M. P., Jakobsson, M., and **O'Regan, M.** (2023). Similarities and differences in Arctic sea-ice loss during the solar-forced Last Interglacial warming (127 Kyr BP) and CO_2-forced future warming. *Geophysical Research Letters*, 50, e2023GL104782. doi.org/10.1029/2023GL104782
29. Farmer, J. R., Keller, K., Poirier, R. K., Dwyer, G. S., Schaller, M. F., Coxall, H. K., **O'Regan, M.**, and Cronin, T. M., (2023). A 600-kyr reconstruction of deep Arctic seawater δ18O from benthic foraminiferal oxygen isotopes and ostracode Mg/Ca paleothermometry. *Climate of the Past*, 19, 555–578, doi: 10.5194/cp-19-555-2023

30. Nilsson, J., van Dongen, E., Jakobsson, M., **O'Regan, M.**, and Stranne, C. (2023). Hydraulic suppression of basal glacier melt in sill fjords. *The Cryosphere*, 17, 2455–2476, doi:10.5194/tc-17-2455-2023
31. Singh, A., **O'Regan, M.**, Coxall, H., Forwick, M., and Löwemark, L., (2023). Exploring late Pleistocene bioturbation on Yermak Plateau to access sea-ice conditions and primary productivity through the Ethological Ichno Quotient. *Scientific Reports*, 13, 17416, doi:10,1038/s41598-023-44295-0

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32. West, G., Nilsson, A., Geels, A., Jakobsson, M., Moros, M., Muschitiello, F., Pearce, C., Snowball, I., and **O'Regan, M.**, (2022). Late Holocene paleomagnetic secular variation in the Chukchi Sea, Arctic Ocean. *Geochemistry, Geophysics, Geosystems,* 23, doi: 10.1029/2021GC010187
33. Swärd, H., Andersson, P., Hilton, R., Vogt, C., and **O'Regan, M.**, (2022). Mineral and isotopic (Nd, Sr) signature of fine-grained deglacial and Holocene sediments from the Mackenzie Trough, Arctic Canada. *Arctic, Antarctic, and Alpine Research*, 54:1, 346-367, doi: 10.1080/15230430.2022.2096425
34. Cronin, T.M., Olds, B.M., Regnier, A.M., **O'Regan, M.**, Gemery, L., Detlef, H., Pearce, C., and Jakobsson, M., (2022). Holocene paleoceanography and glacial history of Lincoln Sea, Ryder Glacier, Northern Greenland, based on foraminifera and ostracodes. *Marine Micropaleontology*. V. 175, 102158, doi: 10.1016/j.marmicro.2022.102158
35. Alatarvas, R.M.H., **O'Regan, M.**, and Strand, K. O., (2022). Heavy mineral assemblages of the De Long Trough and southern Lomonosov Ridge glacigenic deposits: implications for the East Siberian Ice Sheet extent. *Climate of the Past,* 18, 1867–1881, doi:10.5194/cp-18-1867-2022
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37. Jennings, A., Reilly, B., Andrews, J., Hogan, K., Walczak, M., Jakobsson, M., Stoner, J., Mix, A., Nichols, K. W., **O'Regan, M.**, Prins, M. A., and Troelstra, S. R., (2022). Modern and Early Holocene ice shelf sediment facies from Petermann Fjord and northern Nares Strait, Northwest Greenland. *Quaternary Science Reviews*, 283, doi: 10.1016/j.quascirev.2022.107460

2021 *(7)*

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39. Vermassen, F., **O'Regan, M.**, West, G., Cronin, T., and Coxall, H., (2021). Pleistocene biostratigraphy in the central Arctic Ocean – testing micro- and nannofossil bioevent correlations, *Arctic, Antarctic, and Alpine Research,* 53:1, 309-323, doi:10.1080/15230430.2021.1988356
40. West, G., Alexanderson, H., Jakobsson, M., and **O'Regan, M**., (2021). Optically stimulated luminescence dating supports pre-Eemian age for glacial ice on

the Lomonosov Ridge off the East Siberian continental shelf. *Quaternary Science Reviews*, 267, doi:10.1016/j.quascirev.2021.107082

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42. Detlef, H., Reilly, B., Jennings, A., Mørk Jensen, M., **O'Regan, M.**, Glasius, M., Olsen, J., Jakobsson, M., and Pearce, C., (2021). Holocene sea-ice dynamics in Petermann Fjord in relation to ice tongue stability and Nares Strait ice arch formation, *The Cryosphere*, 15, 4357–4380, doi:10.5194/tc-15-4357-2021
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46. Jakobsson, M., Mayer, L., Nilsson, J., Stranne, C., Calder, B., **O'Regan, M.**, Mix, A., and Ryder19 Shipboard Scientific Party, (2020). Ryder Glacier in northwest Greenland is shielded from warm Atlantic water by a bathymetric sill. *Communications Earth and Environment,* 1:45. doi:10.1038/s43247-020-00043-0
47. Martens, J., Wild, B., Muschitiello, F., **O'Regan, M.**, Jakobsson, M., Semiletov, I., Dudarev, O.V., and Gustafsson, Ö., (2020). Remobilization of dormant carbon from Siberian-Arctic permafrost during the last deglaciation. *Science Advances, v. 6 (42).* doi:*10.1126/sciadv.abb6546*
48. Sayedi, S.S., Abbott, B.W., Thornton, B., Frederick, J., Vonk, J., Overduin, P., Schaedel, C., Schuur, E.A.G., Bourbonnais, A., Gavrilov, A., He, S., Hugelius, G., Jakobsson, M., Jones, M., Joung, D., Kraev, G., Macdonald, R.W., McGuire, A., D., Mu, C., **O'Regan, M.**, Schreiner, K., Stranne, C., Pizhankova, E., Vasiliev, A., Westermann, S., Zarnetske, J. P., Zhang, T., Ghandehari, M., Baeumler, S., Brown, B., Frei, R.J., and Maslakov, A., (2020). Subsea permafrost carbon stocks and climate change sensitivity estimated by expert assessment. *Environ. Res. Lett.*, 15, 124075. doi:10.1088/1748-9326/abcc29
49. Tessin, A., Maerz, C., Blais, M-A., Brumsack, H., Matthiessen, J., **O'Regan, M.**, and Schnetger, B., (2020). Arctic continental margin sediments as possible Fe and Mn sources to seawater as sea ice retreats: Insights from the Eurasian Margin. *Global Biogeochemical Cycles*, 34(8), doi:10.1029/2020GB006581

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51. Jakobsson, M., **O'Regan, M.**, Mörth, C.-M., Stranne, C., Weidner, E., Hansson, J., Gyllencreutz, R., Humborg, C., Elfwing, T., Norkko, A., Norkko, J., Nilsson, B., and Sjöström, A. (2020). Potential links between Baltic Sea submarine terraces and groundwater seeping. *Earth Surface Dynamics*, 8, 1–15, doi:10.5194/esurf-8-1-2020
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