

¹⁻⁴⁰ GEM references 2019

- 1 Abermann, J., Eckerstorfer, M., Malnes, E. & Hansen, B. U. A large wet snow avalanche cycle in West Greenland quantified using remote sensing and in situ observations. *Natural Hazards*, doi:10.1007/s11069-019-03655-8 (2019).
- 2 Abermann, J. et al. Strong contrast in mass and energy balance between a coastal mountain glacier and the Greenland ice sheet. *Journal of Glaciology* **65**, 263-269, doi:10.1017/jog.2019.4 (2019).
- 3 Assmann, J. J. et al. Local snow melt and temperature—but not regional sea ice—explain variation in spring phenology in coastal Arctic tundra. *Global Change Biology* **25**, 2258-2274, doi:10.1111/gcb.14639 (2019).
- 4 Beumer, L. T., van Beest, F. M., Stelvig, M. & Schmidt, N. M. Spatiotemporal dynamics in habitat suitability of a large Arctic herbivore: Environmental heterogeneity is key to a sedentary lifestyle. *Global Ecology and Conservation* **18**, e00647, doi:<https://doi.org/10.1016/j.gecco.2019.e00647> (2019).
- 5 Box, J. E. et al. Key indicators of Arctic climate change: 1971–2017. *Environmental Research Letters* **14**, 045010, doi:10.1088/1748-9326/aafc1b (2019).
- 6 Bridier, G. et al. Coastal waters freshening and extreme seasonality affect organic matter sources, quality, and transfers in a High Arctic fjord (Young Sound, Greenland). *Marine Ecology Progress Series* **610**, 15-31 (2019).
- 7 Bulla, M. et al. Comment on “Global pattern of nest predation is disrupted by climate change in shorebirds”. *Science* **364**, eaaw8529, doi:10.1126/science.aaw8529 (2019).
- 8 Canini, F. et al. Vegetation, pH and Water Content as Main Factors for Shaping Fungal Richness, Community Composition and Functional Guilds Distribution in Soils of Western Greenland. *Frontiers in Microbiology* **10**, doi:10.3389/fmicb.2019.02348 (2019).
- 9 Christensen, T. R., Arora, V.K., Gauss, M. et al. . Tracing the climate signal: mitigation of anthropogenic methane emissions can outweigh a large Arctic natural emission increase. . *Sci Rep* **9**, doi:<https://doi.org/10.1038/s41598-018-37719-9> (2019).
- 10 Desforges, J.-P. et al. Quantification of the full lifecycle bioenergetics of a large mammal in the high Arctic. *Ecological Modelling* **401**, 27-39, doi:<https://doi.org/10.1016/j.ecolmodel.2019.03.013> (2019).
- 11 Deuerling, K. M. et al. Chemical weathering across the western foreland of the Greenland Ice Sheet. *Geochimica et Cosmochimica Acta* **245**, 426-440, doi:10.1016/j.gca.2018.11.025 (2019).
- 12 Docherty, C. L. et al. Arctic river temperature dynamics in a changing climate. *River Research and Applications* **35**, 1212-1227, doi:10.1002/rra.3537 (2019).
- 13 Fuglei, E. et al. Circumpolar status of Arctic ptarmigan: Population dynamics and trends. *Ambio*, doi:10.1007/s13280-019-01191-0 (2019).
- 14 Geng, M. S., Christensen, J. H. & Christensen, T. R. Potential future methane emission hot spots in Greenland. *Environmental Research Letters* **14**, 035001, doi:10.1088/1748-9326/aaf34b (2019).
- 15 Gilg, O. et al. Are gastrointestinal parasites associated with the cyclic population dynamics of their arctic lemming hosts? *International Journal for Parasitology: Parasites and Wildlife* **10**, 6-12, doi:<https://doi.org/10.1016/j.ijppaw.2019.06.011> (2019).
- 16 Gray, L. et al. Measuring Height Change Around the Periphery of the Greenland Ice Sheet With Radar Altimetry. *Frontiers in Earth Science* **7**, doi:10.3389/feart.2019.00146 (2019).
- 17 Grønkjær, P. et al. Feeding ecology of capelin (*Mallotus villosus*) in a fjord impacted by glacial meltwater (Godthåbsfjord, Greenland). *Polar Biology* **42**, 81-98, doi:10.1007/s00300-018-2400-8 (2019).

- 18 Harðardóttir, S. *et al.* Trophic interactions, toxicokinetics, and detoxification processes in a domoic acid-producing diatom and two copepod species. *Limnology and Oceanography* **64**, 833-848, doi:10.1002/lno.11078 (2019).
- 19 Holding, J. M. *et al.* Seasonal and spatial patterns of primary production in a high-latitude fjord affected by Greenland Ice Sheet run-off. *Biogeosciences* **16**, 3777-3792, doi:10.5194/bg-16-3777-2019 (2019).
- 20 Hollesen, J. *et al.* Predicting the loss of organic archaeological deposits at a regional scale in Greenland. *Scientific Reports* **9**, 9097, doi:10.1038/s41598-019-45200-4 (2019).
- 21 Krause, J. W. *et al.* Silicic acid limitation drives bloom termination and potential carbon sequestration in an Arctic bloom. *Scientific Reports* **9**, 8149, doi:10.1038/s41598-019-44587-4 (2019).
- 22 Krause-Jensen, D. *et al.* Deep Penetration of Kelps Offshore Along the West Coast of Greenland. *Frontiers in Marine Science* **6**, doi:10.3389/fmars.2019.00375 (2019).
- 23 López-Blanco, E. *et al.* Evaluation of terrestrial pan-Arctic carbon cycling using a data-assimilation system. *Earth Syst. Dynam.* **10**, 233-255, doi:10.5194/esd-10-233-2019 (2019).
- 24 Lund Paulsen, M. *et al.* Biological transformation of Arctic dissolved organic matter in a NE Greenland fjord. *Limnology and Oceanography* **64**, 1014-1033, doi:10.1002/lno.11091 (2019).
- 25 Mazarrasa, I. *et al.* Decreasing carbonate load of seagrass leaves with increasing latitude. *Aquatic Botany* **159**, 103147, doi:<https://doi.org/10.1016/j.aquabot.2019.103147> (2019).
- 26 Middelbo, A. B., Møller, E. F., Arendt, K. E., Thyrring, J. & Sejr, M. K. Spatial, seasonal and inter-annual variation in abundance and carbon turnover of small copepods in Young Sound, Northeast Greenland. *Polar Biology* **42**, 179-193, doi:10.1007/s00300-018-2416-0 (2019).
- 27 Morel, X. *et al.* A New Process-Based Soil Methane Scheme: Evaluation Over Arctic Field Sites With the ISBA Land Surface Model. *Journal of Advances in Modeling Earth Systems* **11**, 293-326, doi:10.1029/2018ms001329 (2019).
- 28 Mosbacher, J. B., Michelsen, A., Stelvig, M., Hjermstad-Sollerud, H. & Schmidt, N. M. Muskoxen Modify Plant Abundance, Phenology, and Nitrogen Dynamics in a High Arctic Fen. *Ecosystems* **22**, 1095-1107, doi:10.1007/s10021-018-0323-4 (2019).
- 29 Møller, E. F. & Nielsen, T. G. Borealization of Arctic zooplankton—smaller and less fat zooplankton species in Disko Bay, Western Greenland. *Limnology and Oceanography* **9999**, 1-14, doi:10.1002/lno.11380 (2019).
- 30 Natali, S. M. *et al.* Large loss of CO₂ in winter observed across the northern permafrost region. *Nature Climate Change* **9**, 852-857, doi:10.1038/s41558-019-0592-8 (2019).
- 31 Nørregaard, R. D. *et al.* Bioaccumulation of rare earth elements in juvenile arctic char (*Salvelinus alpinus*) under field experimental conditions. *Science of The Total Environment* **688**, 529-535, doi:<https://doi.org/10.1016/j.scitotenv.2019.06.180> (2019).
- 32 Pastor, A. *et al.* Microbial Organic Matter Utilization in High-Arctic Streams: Key Enzymatic Controls. *Microbial Ecology* **78**, 539-554, doi:10.1007/s00248-019-01330-w (2019).
- 33 Prevéy, J. S. *et al.* Warming shortens flowering seasons of tundra plant communities. *Nature Ecology & Evolution* **3**, 45-52, doi:10.1038/s41559-018-0745-6 (2019).
- 34 Reneerkens, J. *et al.* Low fitness at low latitudes: Wintering in the tropics increases migratory delays and mortality rates in an Arctic breeding shorebird. *Journal of Animal Ecology* **0**, doi:10.1111/1365-2656.13118 (2019).
- 35 Selander, E. *et al.* Copepods drive large-scale trait-mediated effects in marine plankton. *Science Advances* **5**, eaat5096, doi:10.1126/sciadv.aat5096 (2019).
- 36 St Pierre, K. A. *et al.* Drivers of net methane uptake across Greenlandic dry heath tundra landscapes. *Soil Biology and Biochemistry* **138**, 107605, doi:<https://doi.org/10.1016/j.soilbio.2019.107605> (2019).
- 37 Straneo, F. *et al.* The Case for a Sustained Greenland Ice Sheet-Ocean Observing System (GRIOS). *Frontiers in Marine Science* **6**, doi:10.3389/fmars.2019.00138 (2019).

- 38 Tomassini, O., van Beest, F. M. & Schmidt, N. M. Density, snow, and seasonality lead to variation in muskox (*Ovibos moschatus*) habitat selection during summer. *Canadian Journal of Zoology* **97**, 997-1003, doi:10.1139/cjz-2018-0292 (2019).
- 39 Voříšková, J., Elberling, B. & Priemé, A. Fast response of fungal and prokaryotic communities to climate change manipulation in two contrasting tundra soils. *Environmental Microbiome* **14**, 6, doi:10.1186/s40793-019-0344-4 (2019).
- 40 Zhang, W. *et al.* Model-data fusion to assess year-round CO₂ fluxes for an arctic heath ecosystem in West Greenland (69°N). *Agricultural and Forest Meteorology* **272-273**, 176-186, doi:<https://doi.org/10.1016/j.agrformet.2019.02.021> (2019).