JAMES WARNER

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Research Interests: Atmospheric Dynamics, Convection, Tropical Meteorology, Teleconnections, Numerical Weather Prediction, Process-based Evaluation

PROFESSIONAL ACCREDITATIONS

RMetS
Chartered Meteorologist — *September 2023 - Present (1.9 years)*

EMPLOYMENT

UK Met Office — **Total (5.5 years)**

Senior Scientist - Regional Model Evaluation — *January 2024 - Present (1.6 years)*
Scientist - Regional Model Evaluation — *February 2020 - January 2024 (3.9 years)*

University of Exeter — **Total (3.4 years)**

Research and Teaching Assistant — *September 2016 - February 2020 (3.4 years)*

EDUCATION

University of Exeter — *September 2016 - February 2020*
Ph.D. Mathematics
Thesis: Causality of the link between autumn Arctic sea ice and the winter extratropical atmosphere.

University of Leeds — *September 2015 - September 2016*
M.Res. Climate and Atmospheric Science (Distinction)
Thesis: Understanding changing climatology of extreme precipitation over Europe.

University of Reading — *September 2012 - July 2015*
B.Sc. Meteorology and Climate Science (1st Class Hons.)
Thesis: How do extratropical storm tracks respond to climate change forcings in a simple GCM?

PUBLICATIONS

[15] Talib, J., Taylor, C.M., Klein, C., **Warner, J.**, Munday, C., Folwell, S. and Charlton-Perez, C., 2025. Modelling the influence of soil moisture on the Turkana jet. *Quarterly Journal of the Royal Meteorological Society*, p.e4972. doi:10.1002/qj.4972

[14] **Warner, J.L.**, Franklin, C.N., Roux, B., Cooper, S., Rennie, S. and Kumar, V., 2025. Diagnosing lateral boundary spin-up in regional models using an age-of-air diagnostic. *Quarterly Journal of the Royal Meteorological Society*, p.e4971. doi:10.1002/qj.4971

[13] Bush, M., Flack, D.L., Lewis, H.W., Bohnenstengel, S.I., Short, C.J., Franklin, C., Lock, A.P., Best, M., Field, P., McCabe, A., **Warner, J.**, et al., 2024. The third Met Office Unified Model-JULES Regional Atmosphere and Land Configuration, RAL3. *Geoscientific Model Development Discussions*, 2024, pp.1-58. doi:10.5194/gmd-2024-201

[12] Maybee, B., Marsham, J.H., Klein, C.M., Parker, D.J., Barton, E.J., Taylor, C.M., Lewis, H., Sanchez, C., Jones, R.W. and **Warner, J.**, 2024. Wind shear effects in convection permitting models influence MCS rainfall and forcing of tropical circulation. *Geophysical Research Letters*, 51(17), p.e2024GL110119. doi:10.1175/JCLI-D-23-0325.1

[11] **Warner, J. L.** Munday, C., Engelstaedter, S., 2024. Resolving the Turkana Jet: Impact of Model Resolution in Simulating Channel Flow and Inversions. *JGR:Atmospheres*, 129(14), doi:10.1029/2023JD040299

[10] Munday, C., Engelstaedter, S., Washington, R., Ogutu, G., Olago, D., Ouma, G., **Warner, J.**, Ong'ech, D., Nkatha, R., Ogolla, C. and Lees, T., 2024. The Turkana Jet diurnal cycle in observations and reanalysis. *Journal of Climate*, 37(18), pp.4633-4645. doi:10.1175/JCLI-D-23-0325.1

[9] Jones, R.W., Sanchez, C., Lewis, H., **Warner, J.**, Webster, S., Macholl, J., 2023. Impact of domain size on tropical precipitation within explicit convection simulations. *Geophysical Research Letters*, 50(17), doi:10.1029/2023GL104672

[8] **Warner, J.L.**, Screen, J, Scaife, A., Maidens, A., Knight, J., 2023. Tropical forcing of Barents-Kara sea ice during autumn. *Geophysical Research Letters*, 50(8), doi:10.1029/2023GL102768

[7] **Warner, J.L.**, Petch, J., Short, C., Bain, C., 2023. Assessing the impact of an NWP warm-start system on model spin-up over tropical Africa. *QJ*, 149(751), pp.621-636. doi:10.1002/qj.4429

[6] Roberts, B., Clark, A.J., Jirak, I.L., Gallo, B.T., Bain, C., Flack, D.L.A., **Warner, J.**, Schwartz, C.S., Reames, L.J., 2022. Model configuration vs. driving model: influences on next-day regional convection-allowing model forecasts during a real-time experiment. *WAF*, 38(1), pp.99-123. doi:10.1175/WAF-D-21-0211.1

[5] Fletcher, J.K., Diop, C.A., Adefisan, E., Ahiataku, M., Ansah, S.O., Birch, C.E., Burns, H.L., Clarke, S.J., Gacheru, J., James, T.D., Ngetich Tuikong, C.K., Koros, D., Indasi, V.S., Lamptey, B.L., Lawal, K.A., Parker, D.J., Robers, A.J., Stein, T.H.M., Visman, E., **Warner, J.**, Woodhams, B.J., Youds, L.H., Ajayi, V.O., Bosire, E.N., Cafaro, C., Camara, C.A.T., Chanzu, Dione, C., Gitau, W., Groves, D., Groves, J., Hill, P.G., Ishiyaku, I., Klein, C.M., Marhsam, J.H., Mutai, B.K., Ndiaye, P.N., Osei, M., Popoola, T.I., Talib, J., Taylor, C.M., Walker, D., 2022. Tropical Africa's first testbed for high-impact weather forecasting and nowcasting. *BAMS*, 104(8), doi:10.1175/BAMS-D-21-0156.1

[4] Siegert, M., Bacon, S., Barnes, D., Brooks, I., Burgess, H., Cottier, F., Depledge, D., Dodds, K., Edwards, M., Essery, R., Heywood, K., Hendry, K., Jones, V., Lea, J., Medly, I., Meredith, M., Screen, J., Steinberg, P., Tarling, G., **Warner, J.**, Young, G. 2020. The Arctic and the UK: climate, research and engagement. *NORA*. doi:10.25561/80095

[3] **Warner, J.L.**, Screen, J.A., Scaife, A.A., 2019. Links Between Barents-Kara Sea Ice and the Extratropical Atmospheric Circulation Explained by Internal Variability and Tropical Forcing. *Geophysical Research Letters*, 47(1), 085679. doi:10.1029/2019GL085679

[2] **Warner, J.L**, 2018. Arctic sea ice; a driver of the winter NAO? *Weather*, 73, pp.307-310. doi:10.1002/wea.3399

[1] Gadian, A.M., Blyth, A.M., Bruyere, C.L., Burton, R.R., Done, J.M., Groves, J., Holland, G., Mobbs, S.D., Pozo, J.T.D., Tye, M.R., **Warner, J.L.**, 2018. A case study of possible future summer convective precipitation over the UK and Europe from a regional climate projection. *International Journal of Climatology*, 38(5), pp.2314-2324. doi:10.1002/joc.5336

PEER REVIEWS COMPLETED

1	Atmospheric Research
3	Climate Dynamics
1	Environmental Research Letters
2	Frontiers in Climate
1	Geophysical Research Letters
4	Journal of Climate
1	Journal of Applied Meteorology and Climatology
1	Journal of Geophysical Research: Atmospheres
1	Nature Communications
3	Quarterly Journal Of Meteorology
2	Weather and Forecasting