

EGU22-13283

<https://doi.org/10.5194/egusphere-egu22-13283>

EGU General Assembly 2022

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Vegetation variability and temperature forecasts

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Recent research, based on remote sensing of Normalized Difference Vegetation Index (NDVI) has revealed substantial interannual variability in the maximum vegetation in Iceland. This variability is primarily related to temperature, but also to some extent to precipitation. Most, if not all, operational numerical weather prediction models for that region do however use climatological values for vegetation with no interannual variability.

A preliminary investigation of temperature forecasts in the highlands of Iceland indicates that high NDVI correlates with positive bias of temperature forecasts. This is presumably associated with the impact of increased vegetation on the Bowen ratio in sparsely vegetated regions, but local circulation may also play a role.