



Extratropical storm track activity change in future climate change scenarios

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In the mid-latitudes, synoptic-scale phenomena like high and low-pressure systems generate the variability of the regional-scale weather system. To identify the weather variability of extra-tropical region storm track activity has been analyzed based on observations since the mid-nineteenth century. After early-stage research that directly counted the movement of cyclones, the time filtering method based on grid analysis has been used for an isolated disturbance with periods of 2~7 days. This bandpass filtering method has the advantage of being able to examine the distribution and the variability of the storm track spatially in vertical and horizontal space.

In this study, we confirm the storm track activity in the East Asia region using the dynamical down-scale results from CORDEX (COordinated Regional climate Downscaling EXperiment) East Asia projects. We verify the reproducibility and confirm the temporal change in the storm track activity from various RCM data. In addition to the historical period, we examine the difference in storm track intensity over future climate change scenarios. Through this, we also discuss the role of added value from RCM.

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