

Simulated lake-effect precipitation over the Tibetan Plateau:a case study at Nam Co Lake

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Lake effect is a lake process which responds to and impacts on climate change, and could also influence the local extreme weather events. There are thousands of lakes in Tibetan Plateau (TP) but few studies focus on impacts of lakes on local climate. To investigate the lake-effect precipitation over the high-elevation environment (TP), in this manuscript we took the Nam Co Lake as a case study due to its large size and available observations. With the aid of Weather Research and Forecasting (WRF) model, the impacts of Nam Co Lake on local climate (the generation and cause of lake-effect precipitation processes) have been quantitatively studied.