



Influences of Arctic sea-ice loss in the Pacific sector during spring on the tropical Pacific winter SST variability

Hyerim Kim and Sang-Wook Yeh

Hanyang, ERICA, INSTITUTE OF OCEAN AND ATMOSPHERIC SCIENCES, RESEARCH INSTITUTE, Marine Sciences and Convergent Technology, Korea, Republic Of (won1sun@hotmail.com)

A great attention has been paid on the role of Arctic sea ice in the recent past. This is because the trend of the sea ice concentration has been reducing. In addition, this might be associated with the frequent occurrence of severe weather extreme via the modulation of atmospheric circulation. However, there is little study of how the sea ice loss in the Arctic influences on the tropical Pacific sea surface temperature as well as convection. Due to short of observation, idealized experiments are required to examine its role as a forcing of sea ice in the Arctic on the tropical Pacific SST. Ensemble set of SST restoring experiment as well as the reanalysis dataset are analyzed. It is found that Arctic sea ice loss in the Pacific sector could lead to El Nino-like SST in the tropical Pacific.