

ユーラシア大陸の春季積雪面積変化が東アジアの夏季降水量に及ぼす影響の再考
Revisiting impacts of spring Eurasian snow cover change on the East Asian summer precipitation

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The Eurasian snow cover extent (SCE) anomaly in spring has been considered as one of the important factors affecting East Asian summer monsoon (e.g. Wu and Kirtman, 2007; Wu et al., 2009; Yim et al., 2010). In these studies, the authors analyzed traditional SCE dataset of National Oceanic and Atmospheric Administration (NOAA). Recently, Japan Aerospace Exploration Agency (JAXA) has developed a new long-term SCE product using Advanced Very High Resolution Radiometer (AVHRR) and Moderate Resolution Imaging Spectroradiometer (MODIS) data spanning from 1980's to 2014. This new product (JAXA/SCE) has higher spatial resolution and smaller commission error compared with NOAA/SCE. Continuity of the algorithm is another strong point in JAXA/SCE. Here, we revisit impacts of spring Eurasian snow cover change on the East Asian summer precipitation by using the new JAXA/SCE dataset. Climatological mean fields of spring SCE is not largely different from each other. On the other hand, interannual variability of spring SCE has somewhat different spatial distribution over the Eurasian region (45°N-70°N, 20°E-140°E); NOAA/SCE shows a dipole pattern but JAXA/SCE shows monopole pattern. We will present analyzed results on relationships between spring SCE anomaly over the Eurasia and the East Asian summer rainfall anomaly.