Special aspects of snow cover formation in Siberia

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Introduction

There are a number of studies on the behavior of snow cover (SC):

- In some, the attention of researchers is concentrated on the territory of Eurasia as a whole. For example, it has been shown that in general for Eurasia, the duration of the cold season and duration of the period with a stable SC decrease (Попова В. В., Полякова, 2013; Попова В.В. и др., 2014).
- Other studies, considering individual regions, rely on datasets previously selected as the best, but for a large territory (Титкова Т.Б. и др., 2017; Титкова и др., 2017; Попова В.В. и др., 2018).
- There are also works devoted to the comparison of various datasets of SC (Brown R.D., Derksen C., 2013; Mudryk L.R. et al., 2015).

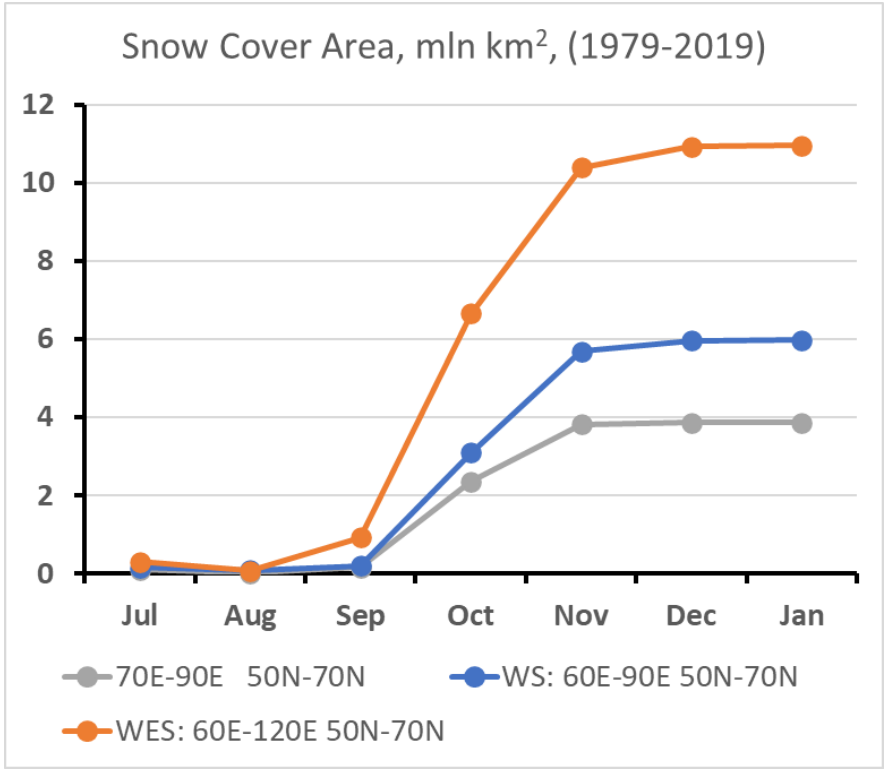
Our Purpose

to assess the interannual variation of the snow cover characteristics for Western and Eastern Siberia

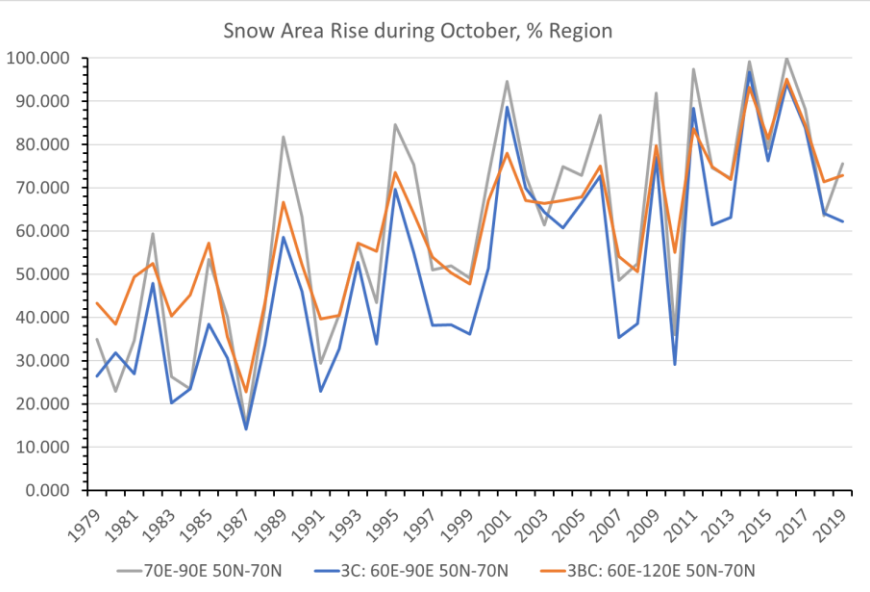
Data and Regions

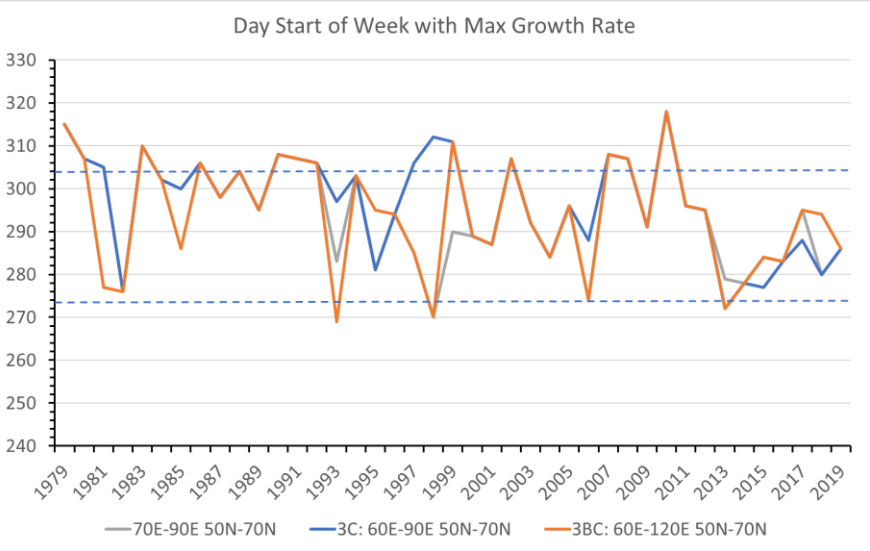
NOAA weekly satellite data on snow cover from the Rutgers University Global Snow Lab (GSL)

(Robinson, 2012)

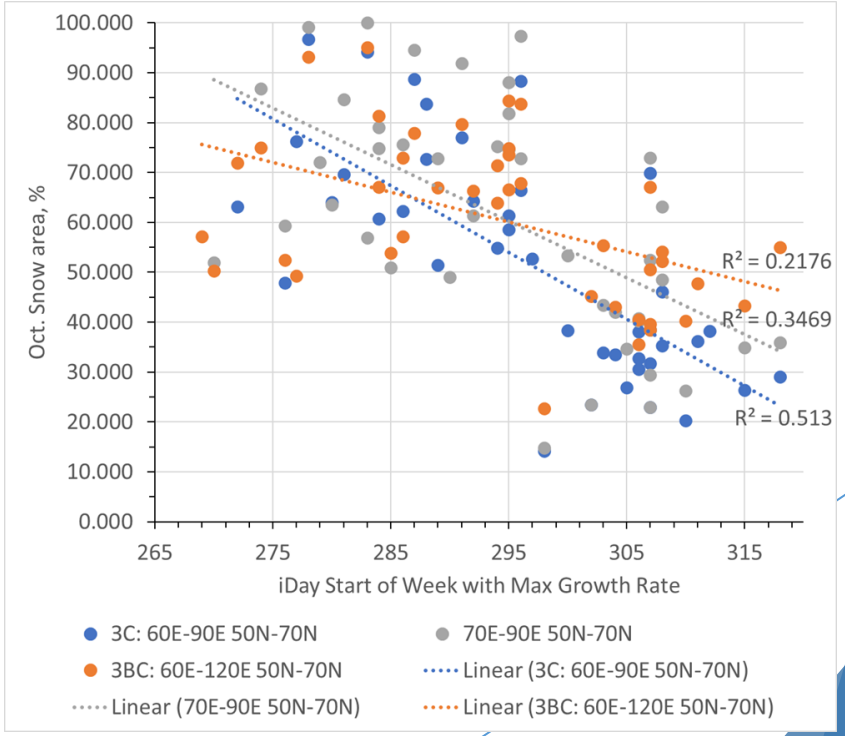


Results





- Dates of SC formation start are the same for WS and small WS for most of the years.
- For WES SC formation starts earlier.
- Dates of SC formation end from region to region vary significantly.
- Significant trend of October SC for all regions under consideration.
- Trend to earlier appearing of the week with max fall SC growth rate. Some studies suggest the trend is an internal feature of this data (Brown R.D. and Derksen C., 2013).
- The October SC trend can be explained by an earlier appearance of the week with intensive SC growth.



Thank you for your attention!