Comment on wcd-2021-23
Dehai Luo

Community comment on "Interaction between Atlantic cyclones and Eurasian atmospheric
blocking drives wintertime warm extremes in the high Arctic" by Sonja Murto et al.,
Weather Clim. Dynam. Discuss., https://doi.org/10.5194/wcd-2021-23-CC1, 2021

Dear the authors and editor:

I have read this manuscript and noted that this manuscript is interesting. However, I
found that some results of this manuscript are consistent with the results from Luo's
group (Gong and Luo, JC; Luo et al. 2017, 2019 (ERL and CD); Zhong et al. 2018,JC).
Thus, It seems that it is useful to make a comparison of the author's study with some
works of Luo's group in introduction. In introduction, the authors should emphasize which
of the author's study are different from the studies of Luo's group. In fact, in Luo et al.
(2017, 2019), they have found that the Atlantic cyclones are steered by the Ural blocking
and NAO+ combination to enter the Barents-Kara Seas (BKS) region. Such a relay
mechanism of the NAO+ with Eurasian blocking in transporting moisture to BKS is more
effective for Ural blocking than for high-latitude European (Scandinavian) blocking. The
authors should mention these and also reference the paper of Gimeno et al. (2019, WIREs-
Climate change,DOI: 10.1002/wcc.588).

References:

Gimeno et al., 2019: Atmospheric moisture transport and the decline in Arctic Sea ice,
WIREs-Climate change,DOI: 10.1002/wcc.588

Zhong et al. 2018: Local and external moisture sources for the Arctic warming over the