Response to Editor

  To facilitate the readability of these revision notes for the editor and reviewers, the comments to the author are in blue, whereas the responses are in black.

Comments to the Author:

Thank you for your revision. I only have a minor comment here. I'm still concerned that it is correct that Inland water and ocean are considered as non-snow types, since there would be lake ice covered by snow for inland water frozen during winters.

Response: We appreciate the editor's suggestion. For version 6 MODIS snow products, the products user guide indicates that lake ice is included in the NDSI_Snow_Cover layer, and the lake ice or inland waters can be masked where their location is mapped in bit 0 of the NDSI_Snow_Cover_Algorithm_Flags_QA (Riggs et al., 2019). We also checked the classification scheme in other related snow studies (e.g., Chen et al., 2020; Huang et al., 2018; Huang et al., 2020; Li et al., 2020), the inland water and ocean are also reclassidied as non-snow types.

References:

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Huang, Y., Song, Z. C., Yang, H. X., Yu, B. L., Liu, H. X., Che, T., Chen, J., Wu, J. P., Shu, S., Peng, X. B., Zheng, Z. J., and Xu, J. H.: Snow cover detection in mid-latitude mountainous and polar regions using nighttime light data, Remote Sensing of Environment, 268, doi: 10.1016/j.rse.2021.112766, 2022.

Li, M., Zhu, X., Li, N., and Pan, Y.: Gap-Filling of a MODIS Normalized Difference Snow Index Product Based on the Similar Pixel Selecting Algorithm: A Case Study on the Qinghai–Tibetan Plateau, Remote Sensing, 12, https://doi.org/10.3390/rs12071077, 2020.

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