

Interactive comment on “Analysis of ice phenology of lakes on the Tibetan Plateau from MODIS data” by J. Kropáček et al.

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We would like to thank to the referees for highly inspiring comments and suggestions. We are convinced that the modifications helped to bring the text to a qualitatively higher level.

Sincerely, Jan Kropáček & co-authors

1) MODIS data used in this study allowed us to analyze the lake ice phenology only in the last decade. This provides an information about the regional climate variation which is a valuable contribution to the present discussion about variation of the Indian Monsoon (Mölg et al., 2012), glacier retreat (Bolch et al., 2010) and variations in hydrological cycle of the endorheic basins (Krause et al. 2010) on the Tibetan Plateau. To

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make any assumptions about climate change based on the presented results would indeed not be relevant and this was made more clear in the text of the revised manuscript. 2) In order to alleviate for this problem, each ice phenology date was obtained as an interpolation between the first neighboring points above and below the thresholds on the open water curve. The accuracy has been assessed by comparison with higher resolution satellite images of Nam Co which resulted in A RMS error equal to 9.6 days and mean time difference of 1.2 days which shows that there is no systematic error in the open water area estimation (Section 3.3). This can be seen as an error estimate of the lake ice phenology for at least the large lakes. 3) The sentence was corrected accordingly 4) The sentence was checked and corrected. 5) The division of the lakes into groups was changed according to suggestion of the second referee. The complete formulation has been changed. 6) Several citation has been added as suggested. 7) The cumulative temperature is referred to as thawing index based on suggestion of the second referee. It has been calculated as a mean cumulative above zero temperature from January to December. Modelled mean daily temperature data for the period 2000-2010 was used for this calculation.

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