

Dear Sir or Madame- Thank you very much for bringing these two issues to our attention. We have addressed them directly as described below.

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- In an effort to more directly address why we cannot resolve increases in rBC concentrations during the 1970s as observed in Himalayan ice cores and attributed to increases in regional fossil fuel emissions, we have added text as follows:
 - Line 587: “Of importance is that the discontinuous sampling of firn in the Dasuopu ice core record presented here does not capture a continuous record of rBC deposition during the post 1970s; a period when rBC is reported to have increased in the southern Himalaya (Kaspari et al., 2011) and Tibetan Plateau (Jenkins et al., 2016; Wang et al., 2015) **in response to regional increases in fossil fuel emissions. An evaluation of the contribution of fossil fuel emissions to the rBC record in the Dasuopu ice core, particularly during the 1970s, is compromised here by the insufficient sampling resolution in the firn section of the ice core.**”
 - Line 615: “It should be noted that the Dasuopu ice core rBC record is discontinuous during the period of increased regional industrial activity (**during the 1970s**) thus the available data cannot address the importance of this regional industrialization to rBC deposition onto Dasuopu glacier.”
- To address Referee #2s comment regarding the implications of rBC on Dasuopu glacier albedo, we have added the following text beginning on line 610:
 - **“While the focus of this study was utilizing the ice core record to investigate the role of biomass burning and drought on BC emissions, the Dasuopu BC ice core record provides information about BC induced albedo reductions at 7200 m in the high Himalaya. Generally, BC concentrations are low (mean = 1.52; median= 0.17 µg/L which would have a very modest albedo effect. However, the episodes of high BC deposition (between ~15 and 82 µg/L, as identified by the spectral coefficients associated with drought events (Fig. 6) could have a larger albedo lowering effect, with interesting implications related to drought conditions and snow melt feedbacks. Investigating albedo reductions from the Dasuopu ice core record is beyond the scope of this study, but warrants further investigation.”**