The Cryosphere

Discussions

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Interactive comment on "Spectral Characterization, Radiative Forcing, and Pigment Content of Coastal Antarctic Snow Algae: Approaches to Spectrally Discriminate Red and Green Communities and Their Impact on Snowmelt" by Alia L. Khan et al.

Alia L. Khan et al.

alia.khan@wwu.edu

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My Main concern is Figure 7(D) and (E). How are the threshold, i.e. the middle line defined for the discrimination of the 2 types of snow algae?

Author's Response: Thank you for your question and we agree that setting thresholds can be challenging in any scientific study. Without more data across larger ranges, we have not attempted to set defined thresholds for separating these algal types. The

lines drawn on Fig.7 were meant to visually separate the three classes: red, green and clean. The mixed red and green samples fell partway between the two groups. Since we don't know the composition of the mixtures, it is difficult to say exactly what a 50:50 mixture would look like. However, we agree the lines can infer a definite threshold and, hence, we have removed the lines and made the distributions overlap. We hope this clarifies our results.

We have also addressed the Reviewer's specific comments in the attached PDF by responding in the comment boxes.

Please also note the supplement to this comment:
https://tc.copernicus.org/preprints/tc-2020-170/tc-2020-170-AC2-supplement.pdf

Interactive comment on The Cryosphere Discuss., https://doi.org/10.5194/tc-2020-170, 2020.