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CORRIGENDUM

Corrigendum: Spatiotemporal evolution of melt ponds on Arctic sea ice: MOSAiC observations and model results

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Keywords: Sea ice, Arctic, Melt ponds, Snow

In the published article, we detected a unit error in the reported pond volume estimates in the text and in Figure 9b.

Errors:

The amount of pond water drained from one of these large ponds was approximately **14,200** m^3; its area decreased from approximately **25,700** m^2 to **5,300** m^2. Although none of these large ponds were measured directly on the transect route, some were connected to surveyed ponds via lateral drainage channels. Thus, there were indirect hydrological effects on the surveyed melt ponds during the drainage event. Based on the mean pond depth and areal fraction from the transect data (Figures 5 and 6), the drainage roughly equated to a bulk meltwater volume loss of approximately **26,500** m^3 (Figure 9b).

Correction:

The amount of pond water drained from one of these large ponds was approximately **4,500** m^3; its area decreased from approximately **8,200** m^2 to **1,700** m^2. Although none of these large ponds were measured directly on the transect route, some were connected to surveyed ponds via lateral drainage channels. Thus, there were indirect hydrological effects on the surveyed melt ponds during the drainage event. Based on the mean pond depth and areal fraction from the transect data (Figures 5 and 6), the drainage roughly equated to a bulk meltwater volume loss of approximately **8,400** m^3 (Figure 9b).

The corrected **Figure 9b** is shown below:

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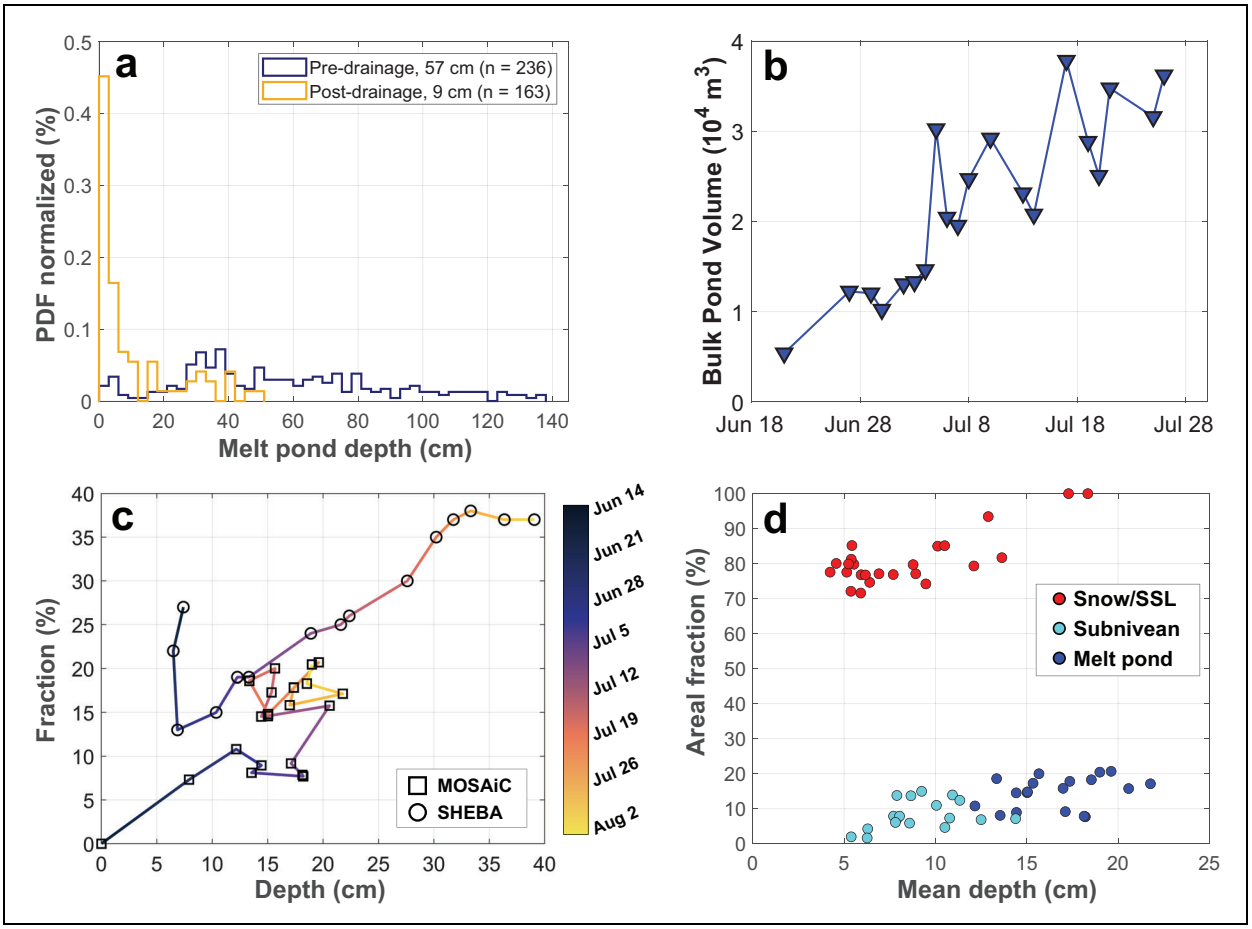

Figure 9. Melt pond characteristics relevant to meltwater storage and model parameterizations. (a) The change in the distribution of pond depths measured on a grid survey of a large pond on Central Observatory 2, before and after the vertical drainage event on July 11–13. Depth measurements were collected on July 9 and 13. Bin width is 3 cm. (b) The bulk (total) volume of pond water based on the average areal pond fraction, pond depth, and area of CO2. (c) Melt pond areal fractions and mean melt pond depths during summer melt from the 200-m survey line at SHEBA and the MOSAiC transect route. (d) The mean areal fractions as a function of mean depth of different surface types on the transect route.

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