

I do not recommend this article for publication:

-Conclusions are not novel. Numerous studies have shown that overall, active layer thicknesses at circum-Arctic sites are increasing, that drivers of patterns in ALT change are not uniform, that thermal drivers commonly dominate (e.g., in colder permafrost), and that other variables (edaphic/hydrological, cf line 347) are important in some settings.

-The authors have seemingly used the **single maximum probed** value from the grid as indicated by the values reported in Ahajjam (2026). Perhaps they are mistaking the “maximum” for maximum thaw depth during the thaw season, rather than the maximum probed depth of all points on the grid (?). The CALM summary grid (at <https://www2.gwu.edu/~calm/data/north.htm>) reports the “Site Average Annual End of Season Thaw Depth”. The site maximum is an outlier that does not represent the average condition. To highlight this, three of the sites from Figure 6 are shown below, with the corresponding data from <https://www2.gwu.edu/~calm/data/north.htm> plotted beside. Both the magnitudes of the values and temporal trends are significantly different. This has led to a conclusion that ALTs are thinning overall in Canada, contrary to past assessments (e.g., Smith et al. 2022; O’Neill et al. 2023). I also note that in Ahajjam (2026), it is not marked which of the 3 methods (thaw tube, grid probing, temperature measurements) were used for each site. Probing in some materials does not correspond with the 0°C isotherm indicated by thaw tubes, whereas the interpolation from temperature measurements can also include errors depending on thermistor spacing.



