

Multi-Temporal Variations in Surface Albedo on Urumqi Glacier No.1 in Tien Shan, under Arid and Semi-Arid Environment

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Table S1. Overview of all compared glaciers.

| Glacier name | Glacier location | Observation scope | Measured time | Reference |
|---------------------|--|----------------------------|----------------|---------------------------|
| Brewster Glacier | The western side of the Southern Alps, New Zealand 44.08°S, 169.43° E | In the ablation zone | 2010.11–2012.9 | Sirduey et al., (2016) |
| Morteratsch Glacier | The Swiss Alps 46.4°N, 9.93° E | In the lower ablation zone | 1995.10–1996.9 | Oerlemans and Knap (1998) |
| Haig Glacier | The Canadian Rocky Mountains 50.7°N, 115.28°W | In the upper ablation zone | 2002–2018 | Marshall and Miller, 2020 |
| Urumqi Glacier No.1 | The middle of the Tien Shan, China 43.1°N, 86.82°E | Near the ELA | 2018.9–2019.8 | This study |

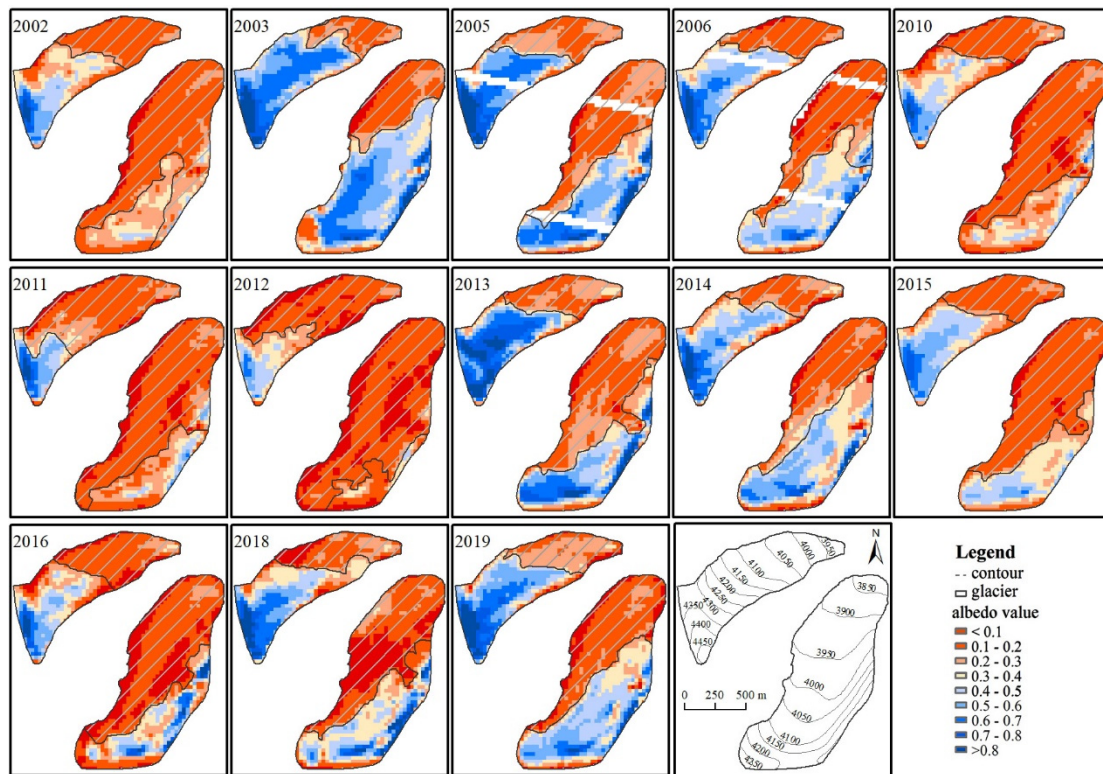


Figure S1. Spatiotemporal distribution of the surface albedo of Urumqi Glacier No. 1 from 2002 to 2019. The diagonal area is visually identified as the extent of bare area.

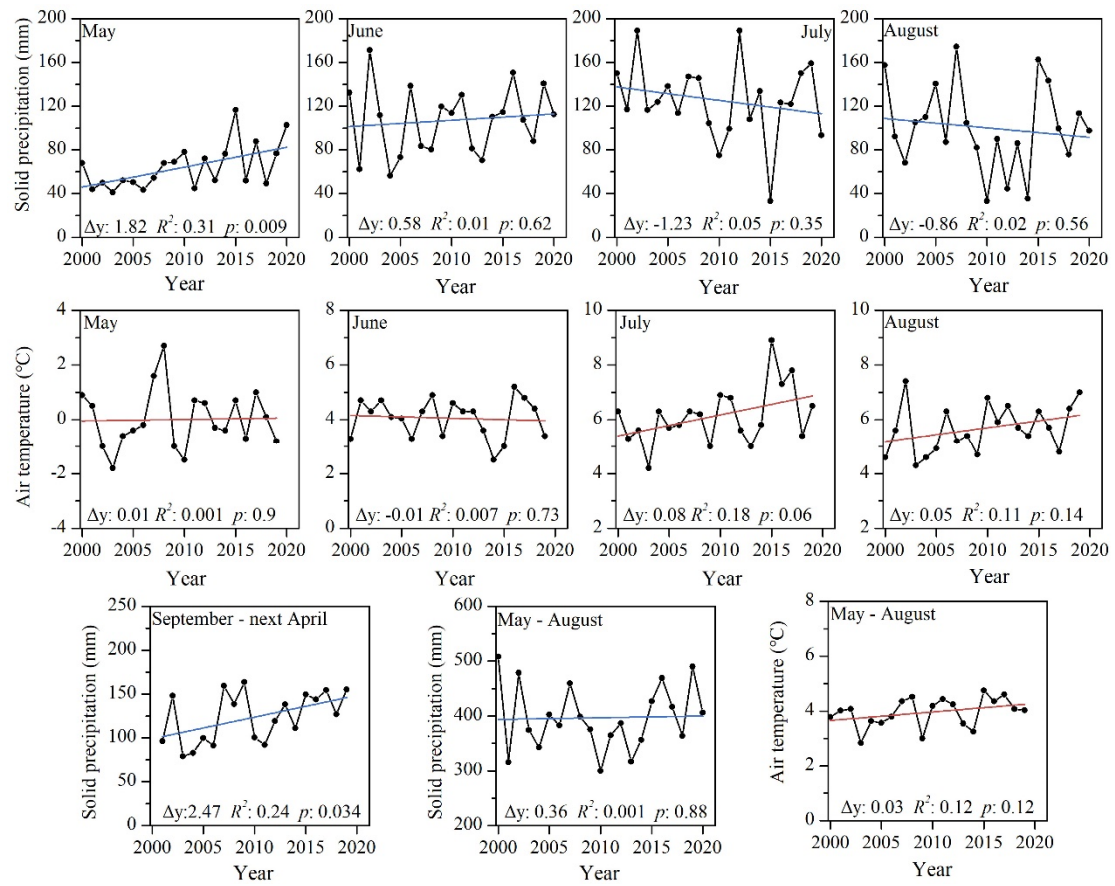


Figure S2. The trends in solid precipitation and air temperature in different time scales during the period of 2000–2020.