

FAST WÄTTEN KENNEN-  
GELERNT  
WIR UNS

DÜRFEN WIR UM DICH  
TRAUERN

AUCH WENN WIR UNS  
NIE KENNENLERNTEN?

Wir; Gletscher

### Gletscherübung

Stell dir vor,  
Du bist eine Schneeflocke.  
Du tanzt durch die Luft.  
Du fällst.  
Du triffst auf die Erde  
sanft.

Du lässt dich nieder.  
Um dich herum Schneeflocken,  
Eiskristalle.  
Ihr verbindet euch.  
Du bist jetzt Gletscher.  
Gibst dich hin  
der Dunkelheit und  
dem Strömen der Jahrhunderte.

Eines Tages erblickst du erneut das Licht der Welt.  
Es wird wärmer.  
Du lässt los  
und rauschst ins Tal hinab.

### 2.2 | Data sources

We based our analysis on glacier outlines of the Austrian Glacier Inventories (GI) for Austria (Fischer et al., 2015b) and corresponding satellite images. The glacier inventories were mapped manually using orthophotos with varying acquisition dates at three periods: glacier inventory GI2 (1996–2002), GI3 (2004–2012) and GI4 (2015) (Buckel & Otto, 2018; Fischer et al., 2015a). We selected glaciers larger than 100,000 m<sup>2</sup> and removed glaciers that completely disappeared within the study period (Table 1). Landsat satellite Collection 1 Level-1 scenes were retrieved from the US Geological Survey (USGS) Earth Resources Observation and Science (EROS) Centre ([www.earthexplorer.gov](http://www.earthexplorer.gov)). Scenes were selected based on the following criteria: (1) acquisition date late in the ablation season with high snowlines, (2) minimum coverage of clouds and haze and (3) a divergence of  $\pm 1$  year from the generation of the glacier outlines in the GIs (see supplement for a table of satellite scenes used). The latter criterion was chosen because seasonal time constraints on the ablation period in combination with frequent cloud cover in mountainous terrain made it difficult to secure suitable timely accurate scenes for all areas. We consider this approach appropriate because the maximum mean length change of glaciers of  $\pm 226$  m/year (Fischer, 2015) across the observation period is lower than the spatial resolution of Landsat sensors (30 m  $\times$  30 m for multispectral bands). Eighteen scenes from three different sensors, viz. Landsat 5 Thematic Mapper (TM), Landsat 7 Enhanced Thematic Mapper (ETM+) and Landsat 8 Operational Land Imager (OLI), were used for the analysis. All scenes were recorded within an annual period between July 18 and



