The retreat of glaciers worldwide, from the Alpine areas to Antarctica, in the course of the last few decades, is frequently mentioned as a clear and unambiguous sign of global warming. In the Alps, although the warming experienced since the early 1980s is synchronous with warming at the global scale, nevertheless its amplitude is greater and it represents roughly a two-fold amplification of the global climate signal. As a result of this rapid climate change, many small glaciers could disappear in the next few decades. These small glaciers, common in the Alps, are also important in terms of environmental and economic systems. The rapid "disintegration" of Alpine glaciers has already been discussed in previous studies; less attention, however, has been paid to their role as changing and potentially vanishing geomorphosites. Most Alpine glaciers, in fact, subject to rapid change driven by climate, are now responsible for unexpected environmental impacts, which in the Italian Alps have only been partially investigated. This paper analyses and discusses features and evolution in two representative glacier geomorphosites included in the official "Geosites Inventory" of the Lombardy region (Italy). In Lombardy (Italian Alps) 348 glaciers covered an area of about 92 km² in 2003. They were found to have decreased in area by about 21% in the period 1990-2003. The geomorphosites analyzed are the Forni Glacier, the largest valley glacier in the Italian Alps, and the Val Viola glacierized basin, where various small glaciers with well preserved moraine ridges (dating from the upper Holocene to the present) can be found. Both the geosites are located in areas identified as 'Sites of Community Importance' (SCI) under directive 92/43/EEC; furthermore, the Forni Glacier is also located in a protected area, the Stelvio National Park. These glacier geomorphosites represent well the variations affecting all Alpine glaciers; these variations are not only driving significant changes in the morphology and ecology of the present mountain landscape, but at the same time are shaping newly formed morphologies, which may develop into smaller geomorphosites with significant value from a scientific and cultural point of view. The changes include thermokarst features such as kettles and supraglacial lakes, debris-covered glacier tongues frequently without any direct connections with the actual glacier, rounded rock outcrops emerging from the glacier surface which increase ice melting and accelerate glacier shrinkage, ice contact and moraine-dammed lakes where calving phenomena occur and icebergs drift loose, moraines affected by ice core melting with subsequent collapse and generation of mud and debris flows.