

## **Abstract**

Today, as our planet warms, the dangers posed by proglacial lakes are becoming increasingly apparent. Often, due to faster glacial retreat, these lakes are enlarged and the risk of lake dam failure is consequently increased. This can lead to a phenomenon known as GLOF (Glacial Lake Outburst Flood), i.e. the breaching or overflowing of a lake dam and subsequent flooding of downstream areas. The key to limiting the damage caused by these events is to increase our knowledge of this phenomenon and to be able to anticipate these events in time. The basis for this must be an analysis of glacial lakes in the area. This should include a time element, which will allow us to keep track of changes in the amount of water retained in the lake. This is the focus of this paper. The South Patagonian Icefield was chosen as the research area and proglacial lakes were mapped from images taken in 1985 which are available on Google Earth Pro. In this way, 93 lakes were found and their evolution was followed up to the present day. From these observations an inventory table with spatial and temporal elements was created. It was confirmed that most of the proglacial lakes in this region are also experiencing an increase in area.