The first National Glacier Inventory of Argentina

Mariano Masiokas, Laura Zalazar, Lidia Ferri, Mariano Castro, Hernán Gargantini, Melisa Giménez, Pierre Pitte, Lucas Ruiz, Rodolfo Crimi, Gustavo Costa, Juan Pablo Scarpa, Pepe Corvalán, Ricardo Villalba, Fidel Roig

IANIGLA (Instituto Argentino de Nivología, Glaciología y Ciencias Ambientales), CCT CONICET Mendoza, Argentina. <u>mmasiokas@mendoza-conicet.gob.ar</u>

Glaciers are strategic water reserves and crucial components of the hydrological cycle in many sectors of the southern Andes. However, despite their socio-economic, scientific, cultural and environmental relevance, the current state and recent variations of glaciers in Argentina was poorly known. The National Law 26639 entitled "Minimum Standards for the Preservation of Glaciers and the Periglacial Environment" was promulgated in 2010, and included as one key objective the development of a National Glacier Inventory (NGI). The NGI was organized in three levels of increasing complexity and decreasing spatial coverage, with Level 1 consisting in the identification, mapping and characterization of all clean ice glaciers, debris-covered glaciers, snowfields and rock glaciers using satellite images. This level also included field campaigns to validate the glacier mapping in selected areas throughout the Andes. The first NGI (Level 1) was recently concluded and presented by IANIGLA-CONICET and the National Secretary of the Environment and Sustainable Development. The results indicate a total of 16078 ice masses covering a surface area of 5769 km2 in the Argentinean Andes between ca. 21° and 55°S. In this talk we will briefly discuss additional details about this first NGI and potential applications in glaciological, hydrological and climatological studies.