LA DEGLACIACIÓN DEL INCACHIRIASCA ENTRE 1975 Y 2018 (NEVADO SALCANTAY, CORDILLERA VILCABAMBA, PERÚ)

***Álvaro Navarro*[1,2,3*], José Úbeda Palenque[2,3], Jesús Gómez López[4]

[1]Charta Digital
[2]Grupo de Investigación en Geografía Física de Alta Montaña, Madrid, España
[3]Guías de Espeleología y Montaña, España
[4]Instituto Nacional de Investigación en Glaciares y Ecosistemas de Montaña (INAIGEM), Huaraz, Perú
**Email: alnafru@gmail.com*

Glaciers are sensitive indicators of climate change, especially those of smaller size, since they are the most susceptible to any minimal variation of climatic conditions. This study focuses on the analysis of the shrinkage of the Incachiriasca-II glacier (72º32´W, 13º21´S; ~ 4950 m) from 1975 to 2018. The first reference of the glacier's delimitation was the annual topographies by Peruvian researchers between 2007 and 2018. This time sequence was extended to 1975 by analyzing 28 images of Landsat satellites 2, 4, 5 and 7. The results show a loss of 51.4% (-0.271 km^2) of the glacier's total area: from 0.528 km^2 (1975) to 0.257 km^2 (2018), equivalent to -0.0063 km^2/year (1.2% per year). According to the observed trend, the annual rate of decline has increased considerably, especially since 2010, from 1% in 2001-2010 to 3% in 2010-2018.

Palabras clave: *Glacier retreat, climate change, Incachiriasca, nevado Salcantay, Cordillera Vilcabamba, Perú*