



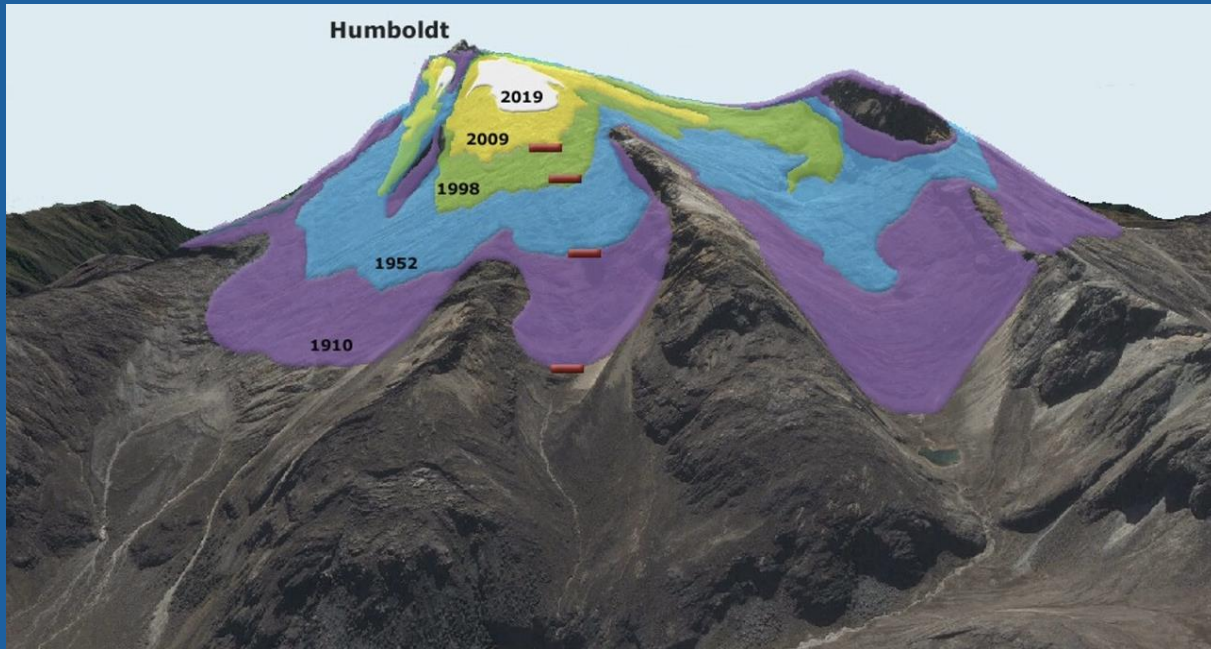
Glacier of the Month

June 2024



HUMBOLDT GLACIER

Retreat of ice bodies 1910 - 2019 Courtesy of Nerio Ramírez



The Humboldt Glacier (Pico Humboldt, 4942 m asl) in the Sierra Nevada National Park was the last of Venezuela's glaciers. It was downgraded from glacier to ice field this year, as assessments have found the glacier had melted much faster than expected and had shrunk to an area of less than 2 hectares. This means Venezuela has likely become the first country in modern history to lose all its glaciers. Described as a 'glaciological anomaly' by some scientists, the Humboldt Glacier would probably have disappeared years ago if it weren't located on the shadier side of the mountain. And since it is so small, its impact on local water resources will likely be negligible. At the beginning of the 20th century, Venezuela had six glaciers, covering a total area of 1,000 km², but five of the six glaciers had disappeared by 2011. By 2019, these ice tongues had already retreated by 98 percent.

As of 2016, the rate of glacial retreat rose to a peak of 17 percent per year. The melting was likely triggered by climate change, leading to significantly higher temperatures at high altitudes. In 2023/24, recorded temperatures for some months 3-4° C above the long-term average. Glacier melting also causes feedback loop effects amplifying ice melt: dark rock absorbs more of the sun's energy, leading to more warming, which in turn leads to more ice melting.