The nearest weather station with records extending over a long period is at Hokitika, nearly forty miles distant. Speight [7] could come to no conclusion as to the cause of changes in the Franz Josef, Fox and Tasman Glaciers, but using weather information from Hokitika and Ross, R. P. Suggate [8] found evidence that the Franz Josef advanced and retreated in response to cumulative departures from average rainfall, combined with accumulated temperature and total annual sunshine variations, with a lag of about five years. The failure of the Ramsay to respond to the increased precipitation between 1941 and 1946, and its slight recession compared with down-wasting both point to greater importance of factors encouraging ablation at lower altitudes. If the Wilkinson, fed from the same area of alimentation as the Ramsay, is actually advancing, the difference would probably be due to its steeper gradient and more rapid flow, which would allow it to respond more readily to short-term climate fluctuations than the flatter, slower glaciers on the Canterbury side, and at the same time would make it less sensitive to changes promoting ablation.

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GLACIER FLUCTUATION IN THE ITALIAN ALPS, 1949

FLUCTUATIONS in the Italian glaciers were published in the last issue of this Journal (p. 421) in an article by Professor A. Desio. Sr. M. Vanni, in the current issue of the *Bolletino del Comitato Glaciologico Italiano* (Ser. 2, No. 1, 1950, p. 103–13), gives results observed in a somewhat larger number of glaciers. These show that in 1949 out of a total of 118 glaciers 93 had receded, 28 were stationary and 2 had advanced. Professor Desio had indicated an advance in 3 glaciers—the two mentioned by Sr. Vanni and the western glacier of Monte Canin. Sr. Vanni attributes the recessions principally to light winter precipitations.

GLACIER FLUCTUATION IN THE SWISS ALPS, 1949

GLACIER recession proceeded at an increased rate during 1949, the figures for 1948 and 1949 being:

	Advance	*Stationary*	*Retreat*
1948	13%	10%	77%
1949	5%	2%	93%

Dr. P-L. Mercanton in his able review of the subject * points out that in the few cases of advance the glaciers were small cirque glaciers.

* *Die Alpen*, Jahrg. 26, No. 6, 1950, p. 201–09.