GLACIER FLUCTUATION, 1954

Swiss Alps

Seventy-two glaciers were observed in 1954: 3 were stationary, 64 were receding, and 5 were advancing. The mean rate of recession was 16·5 m., 0·5 m. more than in 1953. The Rhône Glacier, as in the year before, was still stationary. A full report will be published in *Die Alpen.*

P.-L. Mercanton

Eastern Alps

During the period 1953/54 74 glaciers were studied by members of the Österreichischer Alpenverein under the guidance of Professor R. von Klebelsberg, who has published the survey in the *Mitteilungen des Österreichischen Alpenvereins*, Jahrg. 10(80), Ht. 1–2, 1955, p. 8–10. The main survey will appear in the *Zeitschrift für Gletscherkunde und Glazialgeologie.*

The weather in the summer of 1954 was cool and rainy, with but little sunshine. The snow line was 200–300 m. lower than during former years, even lower than in the summer of 1953. In spite of the bad weather only 2 out of the 74 glaciers checked have advanced (the glacier on the Hochkönig in Salzburg 0·8 m., a glacier in the Stubaier Alpen in Tyrol 6·0 m.). All the others have retreated, although to a somewhat lesser extent than in 1952/53. The ablation and movement of some glaciers were surveyed as usual, for example the largest glacier of the Eastern Alps, the Pasterze. The ablation at the end of this glacier was greater than in 1952/53, *i.e.* 3–5 m. no doubt owing to the heavy rains in the summer of 1954. Its speed of flow has increased a little.

The retreat of the glaciers seems likely to continue.

H. Paschinger

France

The following report is a summary of various observations made by members of the Direction Générale des Eaux et Forêts, Ministère de l'Agriculture.

	Number observed	*Advance*	*Stationary*	*Retreat*
Hautes-Pyrénées ..	3	—	2	1
Savoie..	1	—	—	1
Hautes-Alpes ..	2	—	2	—

Haute-Garonne. The glaciers of Portillon showed retreat up to 1954, but the cold winter and wet summer of that year seems to have halted the ablation in the glacier basins, which in the previous decade had been of the order of 3 m. in places.

Isère. The Glacier de Sarennes has continued to decrease by about 800,000 m.^{3} per km.^{2}. This is due to low accumulation since the ablation has been distinctly less than in the past five years.

Sweden

Three glaciers in Kebnekajse have been measured and have retreated as follows:

Storglaciären	16 m.
Sydöstra Kaskasatjåkkoglaciären	20 m.
Rabots glaciär	15 m.

During the six-year period 1948–1954 the two following glaciers in the Sarek *massif* have retreated:

Tjågnorisglaciären	8 m. (average)
Mikka glaciären	17 m. (average)

Erik Woxnerud

ITALY*

The period from November 1953 to May 1954 was, on the whole, fairly free from snowfall throughout the Italian alps. Snowfall was more abundant in the early summer, when much snow accumulated in the high collecting basins of the glaciers; these remained under snow throughout the summer. However, summer snow is of little importance for maintaining glaciers, so that the recession continued to be appreciable. Nevertheless, if the total number of receding glaciers was considerable, the retreat of each individual glacier was less pronounced compared with 1953, in view of the low mean summer temperature caused by the persistence of bad weather.

The figures for 1953 and 1954 are as follows:

Year	*Number observed*	*Advance*	*Stationary or doubtful*	*Retreat*
1953	102	12	9	81
Percentage	—	11·7	8·9	79·4
1954	95	8	9	78
Percentage	—	8·4	9·5	82·1

In 1954 the Italian glaciers thus continued to show considerable recession although at somewhat slower tempo.

M. VANNI

NORWAY*

The year 1954 showed a great deficit for all measured glaciers in Norway. The regime measurements on Storbreen in Jotunheimen showed an excess of ablation of 0·71 million tons per square kilometre, as against a figure of 0·85 million tons in 1953 and an increase of 0·3 million tons in 1952.

In the past year the firn line was found at 1825 m. The corresponding figures for the years 1953 and 1952 were 1850 m. and 1650 m. respectively.

Eleven outlet glaciers from Jostedalsbreen were observed. They were all in retreat, with an average retreat of 30 m.

One of the glacier tongues from Svartisen and 16 glaciers in Jotunheimen were observed. All of these are receding, at an average rate of 13 m. a year.

O. LIESTØL

ICELAND

Of 32 glaciers observed, 19 per cent were advancing, 3 per cent were stationary and 78 per cent were retreating. The maximum retreat, 228 m., was measured at an outlet from Drangajökull while the greatest advance, 257 m., occurred at Hofsjökull in the central highlands.

JON EYTHÓRSSON

* Details of the fluctuations of the individual glaciers in Italy and Norway have been submitted with the summarized reports and can be made available to members.

GLACIER RESEARCH COMMITTEE

A Sub-committee of the main Committee of the British Glaciological Society is being formed to advise expeditions contemplating glaciological investigations and to initiate glaciological research work in general. Communications should be addressed to the Secretary.