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GLACIER FLUCTUATION, 1953

SWISS ALPS

Seventy-six glaciers were observed in 1953; 4 were stationary, 70 were receding and 2 were advancing. The mean rate of recession was 16 m., 2 m. more than in 1952. The Rhône Glacier, as in the year before, was still stationary. A full report will be published in *Die Alpen*.

P.-L. MERCANTON

NORWAY

The year 1953 showed a heavy deficit for all glaciers in Norway. The measurements of regime on Storbreen in Jotunheimen showed a reduction of 0·85 million tons per square kilometre. The firn line was found at a level of 1850 m., as against 1650 m. in 1952 when the regime measurements indicated an increase of 0·3 million tons per square kilometre.

On Jostedalsbreen 11 glaciers were observed; of these 8 were in retreat and 3 (Bøyumsbreen, Suphellebreen and Brikdalsbreen) were advancing. From this it appears that the shorter outlet glaciers from the Jostedal Ice Cap are still advancing.

One glacier in Svartisen and 11 in Jotunheimen were observed and all were receding at an average rate of 20 m.

O. LIESTØL

EASTERN ALPS

Fifty-eight glaciers were studied in the period 1952/53 by the members of the Österreichischer Alpenverein under the guidance of Professor R. von Klebelsberg, who published a full report in *Mitteilungen der Österreichischen Alpenvereins*, Vol. 79, Ht. 1–2, 1954, p. 5–7.

The summer of 1953 was rather cool and rainy and the melting of ice was somewhat slower than in the period 1951/52. The snow line lay at about 100–200 m. lower than in the previous summer. Of the 58 glaciers 2 high-lying glaciers advanced by 9 and 2·5 m. respectively. Of the rest some advanced in part and receded in part; most receded, but not to the same extent as in the previous year. As in earlier years the thickness, movement and amount of ablation of certain glaciers, for example the Pasterze, were measured. The firn field of this glacier showed greater accumulation in 1952/53 than in former years, but the surface of the tongue had fallen by 2–4 m. One must assume that the melting away of the glacier is still in process.

H. PASCHINGER

ICELAND

Out of 27 glaciers observed 22 per cent were advancing, 4 per cent were stationary and 74 per cent were in retreat. The right (northern) side of Skaftafellsjökull advanced 20 m., while the left (southern) side receded 12 m. The Breidamerkurjökull west of Jökulsá receded 28 m. (average of 4 markers) while the south-east of the river remained stationary.

JÓN EYTHÓRSSON

ITALY

During 1952 and 1953 the general recession was maintained. In the latter year out of a total of 102 glaciers observed 81 were in retreat, 12 in advance and 9 stationary. In general the retreat was of the order of 1-10 m., but the following glaciers showed very large recessions:

di Money (Gran Paradiso) 70 m.
 del M. Frety (Monte Bianco) 40 m. since 1951
 di Scherschen Inf. 54 m.
 di Lamare Centr. (Gruppo dell' Ortoles [Ortler])
 di Lares (Gruppi Adamello-Presanella) 87 m. (since 1949)
 del Porola (Alpi Orobie) 139 m. (since 1949).

The greatest advance was recorded in the Ghiacciaio del Canin Occidentali in the Julian Alps —30 m. since 1950.

MANFREDO VANNI

SWEDEN (1948-53)

Year	Total number observed	Advance	Stationary	Retreat
1948/49	8	3	1	4
1949/50	9	3	—	6
1948/50	8*	2	2	4
1950/51	16	3	2	11
1951/52	4	—	1	3
1952/53	3	—	1	2

* Covered in snow in 1949.

ERIK BERGSTRÖM

FRANCE

Reports from all the glaciers of which observations were made in the French alpine regions showed that the prevailing retreat continued during the season 1952-53. Of 10 glaciers in Hautes-Alpes, Savoie, Haute-Savoie and Isère all were receding. In the Pyrenees, of 4 glaciers observed, 3 were in retreat and 1 was stationary.

Further summaries of glacier behaviour in France covering in certain cases the years back to 1890, although with some interruptions owing to wars, have been supplied by the Conservation des Eaux et Forêts through the courtesy of the Société Hydrotechnique de France.

OBITUARY

WE regret to record the death of A. B. Dobrowolski, formerly Professor of Meteorology at the University of Warsaw and Director of the Polish National Meteorological Institute, who died in Poland earlier this year at the age of 81.

Professor Dobrowolski took part in many expeditions, including the Belgica Antarctic Expedition, 1897-99. He was the author of several important scientific works, notably *Historia Naturalna Lodu* (The Natural History of Ice), which was written in 1916 and published in 1923. A part of this work was reprinted in English in 1948 under the title of *Glaciers; Structure and Movement Theories*, published by the Institute for Experimental Physics, Warsaw.