

Fifty years ago the snout of *Wintun Glacier* is said to have reached the 8,000-ft. level, but since then it has retreated to a point above 10,000 ft.—a horizontal distance of several miles.



*Konwakiton Glacier* was described and mapped by the early writers, but its lower portion as well as what is now *Mud Creek Glacier* were overlooked, apparently because they were covered with ash. At that time these glaciers must have been united and have extended from 1,000 to 1,500 ft. lower than the map indicated for *Konwakiton Glacier*. In 1924 profound changes occurred in these glaciers and their covering of ash largely disappeared. Between that year and 1933 the terminus of *Mud Creek Glacier* retreated 440 yds., which, according to the committee's report, is believed to have "been occasioned more by the breaking down of the supporting wall of ash underneath the snout, which disintegrates with infiltration of water seeping through the glacial ice, rather than by the melting of the ice front." The walls of the gorge below the present terminus have broken down to such an extent since 1924, that it is very difficult to identify the former positions of the terminus. In 1933 *Konwakiton Glacier*, which was formerly a tributary of *Mud Creek Glacier*, had become entirely separate.



Important changes were also found to have been taking place among the smaller glaciers. The terminus of *Clear Creek Glacier* has retreated very considerably during the last few decades. Glacial ice in the southwest draw up which runs the *Sisson Trail* was reported by early explorers and topographers, and noted as late as 1923, but in 1933 had entirely disappeared.



*Glaciers of Yosemite National Park*. Since 1931, C. A. Harwell, Yosemite Park naturalist, has made yearly observations and measurements of the glaciers of Mts. Lyell, Maclure, Dana, and Conness. The reports of this systematic study are of great value and set a high standard for others to follow.

A warm and prolonged melting period in 1933 greatly reduced all the glaciers of this district. Observations made in 1932 and 1933 at the various measuring stations show that during that year the termini retreated as follows: *Lyell Glacier* (east lobe), 18 ft., (west lobe), 7 ft. and 8 ft.; *Maclure Glacier*, 22 ft.; *Dana Glacier*, 67 ft. and 30 ft.; and *Conness Glacier* (east lobe), about 177 ft. The east lobe of *Conness Glacier* is reported to be very thin and so much reduced since 1932 that "a few light winters or heavy melting summers may cause this lobe to disappear entirely."