Despite language differences and other difficulties the relations with both the faculty and students have been excellent. I think that it will be a year well spent for our mutual benefit and it certainly is proving to be an interesting one.

JOHN RETZER'S SOIL SURVEY OF FRASER ALPINE AREA, COLO.

Dr. Retzer, leading soil scientist of the Forest Service, has produced an excellent report and soil map of the Fraser Alpine Area which is "some 50 miles west of Denver, Colorado. The total surveyed area is about 85,700 acres, of which 69,800 is above timberline." Bedrock is gneiss and schist, some pegmatites, granite volcanic tuff, Dakota sandstone, Morrison shale. Elevations range from 8,723 to 13,576 ft. above sea level. Average annual precipitation is 30" and temperature, 30°F. There are about 50 cirques (steep-walled glacially excavated amphitheatres) in the area, on east and north sides of high ridges.

Soil freezes during the cold season only where and when deep snow is removed by wind or spring melting. The soil surveyor sees elk, mule deer, black bear, marten, weasel, mink, muskrat, red fox, coyote, bobcat, snowshoe hare, pine squirrel, beaver, possibly mountain lion. Ptarmigan, dusky grouse, mallards are present. Trout are abundant. Some of these animal names carry over into the soils legend, as: Bobcat gravelly sandy loam, Ptarmigan loam. There is a Lunch peat and a Bottle fine sand. "The percentage of gravel and stones is so large in these soils... that they tend to be much more droughty than their textures as conventionally reported, would indicate." It appears that climate, as influenced by high elevation and aspect is the major factor of soil formation. Moisture and heat are limited as is the growing season (less than 75 days). "The single wet-dry cycle strongly contrasts with the periods of wetness and dryness that may be repeated several times in a year in humid areas at lower elevations... Soils are often quite dry at the time the first snow falls." To enjoy the illustrations in this report, see Series 1956, No. 20 (issued March, 1962), U.S.D.A. (F.S.& S.C.S. in cooperation with Colo. Agric. Exper. Sta.).