

flat tundra beyond the bank of the lake, especially in slight swales or depressions which were used when the snow covered the ground. They are now abandoned because of lack of overhead protection and the greater part of the lemming population has retreated to the protective bank where they are actively digging and reexcavating holes for protection as the snow masses are now melting and destroying their winter overhead protection. The last few days and the next few days are going to be the critical period for these mammals and unless they find adequate hole retreats will certainly fall prey to raptors. This is the period when the lemmings are exposed to the elements and the predators and the period of great excitement among lemmings. This is the condition that could lead to mass movement. The greatest change has occurred last night in that the snow covered runways at the base of the bank have been exposed (80%) and the lemmings must either find shelter among the irregularities of the bank, among the 20% remaining protected runways (covered with snow) or perish. The valleylike area between the present level of the snow and the bank may have been created by either the activity of the lemmings or by natural weathering of the west exposure of the bank. There is no doubt that these lemmings have completely changed the original configuration of the shoreline with their deep runways and excavations. This is certainly a major reaction of animal on soil. Some runways are 30 cm deep and 12 cm wide. Considerably dry grass stems and debris have accumulated in the main runways at the bottom of the bank and here again an important coaction between animal and the fertilization of lakes with vegetation material. It is interesting to observe that the lemmings were confined to the east and part of the north and south shorelines. The break in the distribution of lemmings on the north bank was abrupt with no animals beyond to the west. It is possible that the mounds have been the source of lemming population during low years and the repopulation of the lakeshore has been accomplished more recently. Found one dead lemming at south end of lake, curled in grass runway as if dead from exposure (may have been hit by trap). One lemming apparently killed by trap sprung yesterday ^(P.M.) and near trap and this morning flies had already deposited eggs in fur. This I could hardly believe with the weather as cold as it was. One lemming in trap and partially eaten by Pomarine jaeger (hind quarters). There did not appear to be any unusual concentration of predators here.