

1 1/2 mi. W and 3/4 mi. N Umiat, 69°22'18", 152°08'10", 370 ft., Alaska

Sept. 1, 1951

Checked trapline of 150 traps this A.M. as (cat. nos 1-11):

- 7 *Microtus oeconomus*
- 3 *Clethrionomys rutilus*
- 1 *Sorex tundrensis*.

Betula nana is more red than yesterday and showing a similar trend in color change as I observed at Chandler Lake earlier this season. The large alders are now dropping their green leaves which are covering the surface of ground below. The willows are now nearly all yellow. Pulled all traps and set 130 in marsh (see map for second set). From this line before I pulled traps caught:

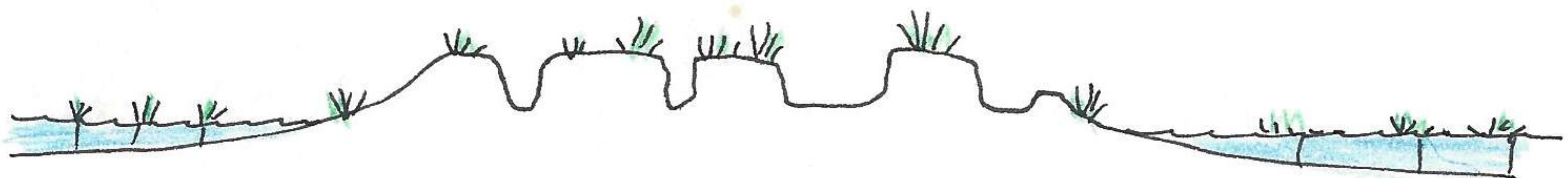
- 1 *Microtus murus*
- 1 *Sorex cinereus*
- 9 *Microtus oeconomus*
- 1 *Clethrionomys rutilus*

all mammals active in daytime. Gyrfalcon (brownish-grey) in area. 14 white-fronted geese flew over marsh set and are probably the same group as observed the previous day. They call frequently after dark.

1 1/2 mi. W and 3/4 mi. N Umiat, 69°22'18", 152°08'10", 370 ft., Alaska

Sept. 2, 1951

Cold last night. Sprinkled lightly this A.M. Checked the new trapline of 130 traps in marsh. This set is on ridges of polygons where the mammal (microtine) trails are numerous. Centers of polygons have standing water and sedges. The fracture



has excellent corridors used as trails and are protected on sides except the top. Overhead protection is vital in ecology of arctic slope mammals. If protection is present, one generally finds mammals. If overhead protection is not present, one is more than likely going to be disappointed. Lemmings and *Dicrostonyx* fluctuation may be governed by plant growth, ^{for overhead protection} and if we have a knowledge of plant fluctuation we may have the key to small mammal population fluctuation, at least in part. Periodic flooding certainly is a factor in this country and perhaps