

8. *Peromyscus maniculatus* were living in some burrow systems as *m. ochus*. a few were found under boards. In no instance did I see, in the field, a live *Sigmodon* or *M. ochus*,

of the 10 trail units a live trap and 4 snap traps were placed in the trail system and burrows associated with the trail system. These were left all night and examined the following morning as:

March 29, 1960  
 First trail unit of area 1 produced. (area = between sets of utility poles)  
 1 *Microtus ochrogaster* ♀, 175-44-20-38gms, 2x3 emb. just starting.  
 (600329-4) liver white and fumes of red hemorrhaging blood.

2nd trail unit of area 2 produced:

1 *Microtus ochrogaster* (600329-5) ♂, 143-36-19-10-23gms, testes 8mm

The first trail unit was abandoned but recently used.

7th trail of unit 3 produced:

1 *Microtus ochrogaster* (600329-7) ♀ 162-35-20-12-44gms 2x3 emb 4mm

2nd trail of unit 3 produced:

1 *Peromyscus maniculatus* (600329-6) ♂ 149-56-18-14-20gms testes 11mm

3rd & fourth trail systems abandoned but recently (with last wet) used.

First trail of unit 4 produced:

1 *Microtus ochrus* (600329-8) ♂ 145-30-20-11-33gms. testes 14mm

1 *Peromyscus maniculatus* (600329-9) ♂ 150-56-18-14-19gms testes 11mm

First trail of unit 6 produced:

1 *Microtus ochrogaster* (600329-10) ♂ 148-31-20-11-32gms testes 13mm

all other trail units systems on transect were abandoned, probably in the last few days.

The evidence is that *Microtus* is capable of existing under adverse effects such as trampling and overgrazing by cattle and removal of overhead protection. The nocturnal habits and depressed trail units accounts for their ability to evade hawks by day & owls by night. *Peromyscus* may profit by living with *Microtus*. Last year there were many grass surface nests. This year there were only a few. One interesting observation was the presence of large angle worms under the droppings of cattle & horses, as many as 5 or six under each pile. Yesterday, the water of the Wakarusa was (a guess) 11 feet below the bridge (measured as before). at 3:00 P.M. this date (March 27) was 5 feet from bridge, an increase of 1/2 foot since noon. at this time made photo (600327-1) from middle of bridge to east showing high waters. From here went to Lone Star Lake which is 80% covered with ice. One morning gluck butterfly (5:00 P.M.) resting on rock exposed to sun. High water overflowing. One sculp on lake. At Lawrence counted 1640 snow geese & blues flying about 1500ft from east to west.