

FUR, NOT FEATHERS

by
W.A. Fuller

Recently, two mammals were sent in to the university for identification. In the absence of other material, I thought we could enlarge somewhat on these.

The first specimen was a pigmy shrew, Microsorex Hoyi intervectus, sent in by Anton Woycheshen of High Hill. The second was Drummond's vole or meadow mouse, Microtus pennsylvanicus drummondi found by our editor, Cliff Shaw. These two species are representatives of two quite different groups and so we would expect them to show some differences. They exhibit also, some similarities.

Probably the first thing one would notice about the two specimens is their small size. In the case of the shrew, we have the smallest North American mammal. They have some habits in common also, such as living in covered runways, and remaining active throughout the winter. The latter feature is in contrast to many of our native small mammals which hibernate. This however, is about as far as we may carry the similarity.

The shrews are members of the order Insectivora. They are the only representatives of that order in Saskatchewan, although in Eastern Canada, another member, the mole, is found. Shrews are secretive beasts and apparently not common. Six species of shrews occur in Saskatchewan, but much more information is needed before we can say much concerning the limits of distribution or habits of each species.

The mice, on the other hand are a very common and well known group, belonging to the order Rodentia which has many Saskatchewan representatives (squirrels, ground squirrels, woodchucks, muskrat, beaver and so on.) It is interesting to note, in passing, that Drummond's vole occurs over the whole of Saskatchewan from the international border to Lake Athabaska, and on into the North West Territories, at least as far north as Great Slave Lake.

The outstanding difference between the two groups is the food they eat, Insectivora, as their name implies, are insect eaters, while the Rodents are plant feeders. This difference is reflected in anatomical differences in the organs for ingestion and digestion of food, and in ecological differences in the habits associated with their food getting.

The shrews have a long pointed snout which enables them to penetrate tiny crevices in which insects might be hiding. Their long jaws are filled with a formidable array of sharp pointed teeth, especially adapted to grinding the tough skeletons of their prey. They have internal modifications also, to provide for the digestion of their particular diet. Because their food is insects they hunt at times and places governed by the habits of their prey. Since they are really predators they are extremely bold for their size and are reported to attack mice much bigger than themselves.

The Rodents, as every one knows, have chisel-shaped incisors for cutting through tough plant fibres. Internally they have a very large coecum and appendix which may be associated with their high cellulose intake. No mammal is able to digest cellulose, but this large coecum may harbor friendly bacteria, molds or Protozoa, which could break cellulose down into a form which the animal may use. Being herbivores they are timid and many of them are most active at night.

So much for our mouse and shrew and the interesting questions of their quest for food. Another very interesting ecological problem concerns the life history of the animals, that is, such things as time of birth of young, number of broods per year, number of young per litter, when young are first able to fend for themselves. The time of year when nature will be making these things known to us is fast approaching, and I hope that all readers of the "Blue Jay", be they botanists, bird watchers, entomologists or just nature lovers will not overlook any opportunity to jot down facts pertaining to the breeding habits of our Saskatchewan mammals. Please remember though, that the observation is worse than worthless if it is inaccurate. Be sure to include place and date of observation, any special circumstances and the correct scientific name of the mammal. If there is any doubt about identification the specimen should be sent to Mr. Fred Bard, Director of the Provincial Museum, Regina, or to me, care Dept. of Biology, University of Saskatchewan.

A note as to preparation may be in order here. If convenient, the specimen should be quickly frozen, wrapped in a goodly amount of an insulator such as cotton batting and shipped while frozen solid. In warm weather a specimen should be immersed whole in a preserving solution after a small incision (half an inch or so)

has been made in the abdominal wall to allow penetration of the fluid. The best solutions for the purpose are commercial formalin (diluted two to one) and alcohol (about 80%).

In closing, I would like to express the desire to hear from many more readers of the "Blue Jay", and wish you all good hunting for information about the wild life of our Province.

MUSKRATS

by

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Provincial Dept. of Natural Resources.

Back about 1909 muskrats were very plentiful and everywhere they were trapped during the entire fall and winter months. There were no trappers' licenses in those days and muskrat pelts had to be good to bring .15¢ each. Gradually muskrats began to disappear until finally closed seasons were imposed. Fall trapping was prohibited, shooting and spearing was out. Finally a closed season had to be declared for the entire year. Then as muskrats became plentiful the season was opened in the springtime and as "rats" were worth around .75¢ to \$1.00 they were trapped out to the point of extinction in a short time.

It is interesting to note that "Ducks Unlimited" constructed a ditch during the summer of 1942 from Willowbrook Creek to divert the water to the Rowsay Lakes and York Lake areas. During the spring of 1943 there was a fair "run-off" and a good supply was maintained in both Rowsay and York Lake. During November 1943 a count was made of the muskrat houses on Rowsay Lakes, by members of the Yorkton Natural History Society, and numbered 194 houses. There was no open season for the taking of muskrats in the fall, but in the spring of 1944 a general open season was declared and the muskrats were pretty well thinned out. However a few poachers were apprehended on the area and this had some good results. The muskrat houses were again counted in the fall of 1944 by members of the Yorkton Natural History Society and 576 houses was the result. There was no general open season on muskrats during the spring of 1945, but no doubt the "moonlight" method of trapping, along with the illegal fur dealer carried on some business from the area. However, the residents of the area began to see that an effort was being made to build up the muskrat population and they rendered great assistance in reporting illegal trapping.

Muskrats flourished during the summer of 1945 and the count made in December of that year showed there were 1200 houses on the area.

Early in February 1946 the Game Branch of the Provincial Department of Natural Resources proposed to introduce the quota system of trapping muskrats to the Southern part of the province. This system has been in effect for some time in the marshes of Manitoba, and showing results. Under this system a trapper would be allotted a certain piece of marsh and would trap a quota of muskrats from that area. No one else would trap on the area allotted to him, and he in turn would trap only on his own. As nearly as possible not more than three muskrats per house would be taken, as it is estimated that the average is five muskrats per house, and at least 40 per cent must be left to insure sufficient breeding stock. The pelts were to be turned over to the Game Branch and sold through the Saskatchewan Fur Marketing service. Twenty per cent of the proceeds were to be taken by the department for development work and the balance paid to the trapper.

March 20, 1946, when the season opened, there were some 33 trappers on the Rowsay Lakes area. Each man trapped his quota of 80 rats, and actually some 2614 pelts were taken. The trapper averaged \$2.62 per pelt for his share - pretty fair money, I would say, for 10 days work.

During the fall of 1946 an attempt was made to have the trappers organize their own co-operative to trap this area, but so far only the seeds of such a venture have been sown.

A count of houses was made again during December and this spring (1947) there are 1660 muskrat houses, where there were only 194 in 1943. The department of Natural Resources has had to supply patrol men for the area, and will again have to supply general supervision of the trapping this coming season. The Department will also be entitled to 20 per cent of the net proceeds from these marshes. However it