Regional Director, Boston, Mass. January 9, 1961

Missisquoi Refuge, Swanton, Vermont

MGT. - Animals (Trapping Program, 1960-61) - Missisquoi Refuge

Reference is made to previous correspondence regarding a trapping program at this refuge during the 1960-61 season. We have now completed our muskrat house counts on all trapping units and made an evaluation of the beaver status. The following table shows the results of the muskrat house count; the recommended removal is discussed following this table as is the beaver situation.

Trapping Unit	Houses	Estimated Population
#1 (Goose Bay)	271	1355
#2 (Big Marsh Slough, east)	113	565
#3 (Big Marsh Slough, west)	58	290
#4 (Patrick Marsh)	47	235
Total	489	2445

Each house was estimated to hold 5 muskrats this year, judging from the large size of the houses; this gives us a total of 2445 muskrats. In addition, there are muskrats inhabiting the dikes, nesting islands, and other localized areas or sites affording bank habitat. It is estimated that our total muskrat population is over 3000 and possibly as high as 3500. As may be seen from the above table, the majority of the houses are concentrated in those units in closest proximity to our dikes in Goose Bay and Big Marsh Slough. We have already experienced some damage to these structures and it is imperative that we prevent further damage. Last spring, when the muskrat population was suspected as being low, we effected limited control along the dikes by shooting. This year, the population will be too high to enable any effective control by such means.

Therefore, it is recommended that a share-trapping program be re-instituted this coming spring immediately following the ice break-up which generally occurs during the 1st week of April. This will give us from 2 to 2½ weeks of trapping; the season closes April 19. It is proposed to engage at least one- possibly two- good trapper(s) to commence trapping in Unit #1 (Goose Bay) where the greatest concentration of houses is located. Since our only completed dike is in this unit, it is proposed that approximately 500-700 'rats be removed from here, with trapping operations being concentrated at and near the dike. (Unless we are fortunate enough to get the services of one very good trapper, we may have to use two trappers to accomplish the removal). At such time as trapping success in Unit #1 falters, it is proposed to shift trapping

operations to Unit #2 (eastern section of Big Marsh Slough). However, if we use two trappers, both units can be trapped concurrently. Of the estimated population of close to 2000 muskrats in these 2 units, a removal of close to 50% would not be detrimental, especially when considering the protection given the two dikes. There are sufficient muskrats in the other unit (#3) and the rear portions of the trapped units, as well as in the adjacent lake, rivers, and private marshes, to quickly re-populate Units 1 and 2.

Unit #3 (western portion of Big Marsh Slough) has a lower muskrat population than normal, due primarily to the drawdown effected last fall. This drawdown apparently had the effect of concentrating the 'rats in the eastern section(Unit #2) where there was more water. It is recommended that no trapping be done in this unit.

Unit #4 (Patrick Marsh) is an area where no water level control is possible (Charcoal Creek) and where the muskrat population has remained relatively stable for a number of years. Its population is low and the 'rats should be allowed to remain in order to help control vegetation and thus provide more suitable conditions for waterfowl. No trapping is recommended for this unit.

In regard to Beaver, we know of at least 8 locations where there are one or mor lodges or bank dens. There is a minimum of 30-40 beaver present on the refuge, with possibly as many as 50-65, and from signs and activities during the past year they appear to be increasing. The same is true in areas near or adjacent to the refuge, according to what we have seen and what has been reported to us by the local State Game Warden. Damage to trees along our roads, the riverbanks, and to trees along the narrow Public Fishing Area has been increasing greatly in the past year and no signs of abatement appear in the offing. The use, although limited, of repellents seems to have no deterrent effect. It is therefore recommended that 15 Beaver be removed by share trapping. Colonies to be trapped should be left to the discretion of the Refuge Manager as some coloinies are of no immediate nuisance or may be too small at present. We have no concrete assurance that there will be an open season on the beaver in this county this year, but Vermont Fish & Game Service Director Davis advises that he will probably declare such an open season for the months of February and March. According to law, this season will be published at least 10 days before such season will take place.

Recommendations

Muskrat: Share trapping by one or two trappers. Concentrate trapping on Unit #1 and then Unit #2 if by 1 trapper; both units concurrently if 2 trappers. Removal of up to 1000 muskrats is recommended. Doubtful if this many can be removed in the short time available (ice-out in early April thru April 19), but effort should be made. No trapping in Units 3 and 4. Season: October 25, 1960 thru April 19, 1961.

Beaver: Remove 15 beaver from designated colonies which are causing most damage. Season not yet set, but probably for the months of February and March.

Fox, Raccoon: Continue as maintenance project throughout the year by refuge personnel.

Other: No trapping recommended for other furbearers (mink, otter, weasel, skunk). Any of these animals trapped accidentally to be turned over to the Government.

Edwin H. Chandler
Refuge Manager