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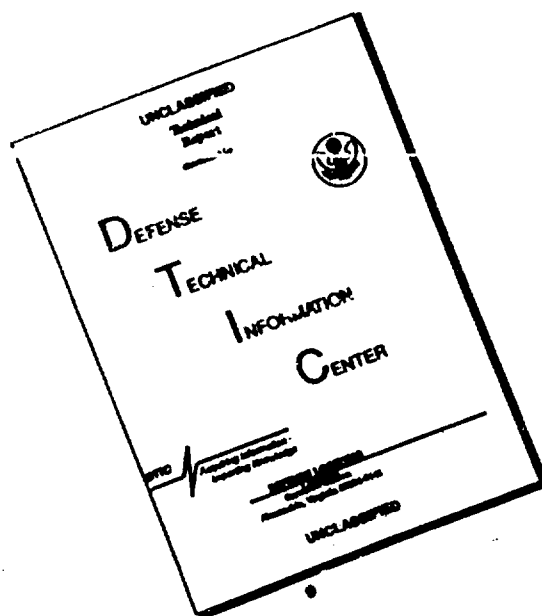
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"The Possible Role of the Muskrat" (*Ondatra zibethica* L.) in the

Epidemiology of Plague: Conclusions

By G. M. Krotkova

(From Vestnik Mikrobiologii, Epidemiologii i Parazitologii, Vol. XIX, No.2, 1940)

1. On the basis of experiments conducted from July through November 1939, the muskrat proved very susceptible to plague through subcutaneous infection and from feeding on the organs of guinea pigs which had died of plague.
2. A high percentage of sepsis was observed in the experimental animals, which confirms the high susceptibility of the muskrat to plague. Hence, infection can take place through blood-sucking parasites, which, in turn, can bring about the development of an intensive epizootic among the muskrats.
3. Equally with the acute form of the infection, the lingering forms of the disease may be found in individual animals. Cases of recovery from plague are also possible.
4. Equally with the parasitic factor, the eating of other rodents - - and of each other - - by muskrats may assume a certain significance in the development of a plague epizootic among them.
5. The mating period, as well as those of settling and migration may be periods favorable to the development of an epizootic.
6. In the hunting season, people may be infected with plague by muskrats through exposure to skins and also through parasites.
7. Since muskrats migrate over wide areas and multiply rapidly there is every reason for fearing the spread of plague infection far beyond the

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limits of plague enzootic areas. Therefore, in places of exit from endemic areas, and in places connected by water with such areas, it is necessary to exterminate muskrats by intensive hunting. In muskrat hunting in enzootic areas the preventive measures recommended by the Ministry of Fur Trade must be observed.

8. Further study of the fauna-composition of the ectoparasites acquired by muskrats in areas of their acclimatization, and of the possibility of transmitting plague or tularemia from one animal to another through these parasites is necessary. Further study of the relationship of muskrats to tularemia infection is also required.

9. The permission of the Ministry of Health is necessary before further acclimatization of muskrats in other areas of the USSR can be undertaken.