Rabies in Animals Other Than Dogs

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Since a large percentage of the people in the world are urban dwellers, they have the notion that their pet animals are the sole sources of danger from rabies. That other animals are involved is attested to by the following chart which lists the source of exposure and the mortality rates of more than a million and a quarter people throughout the world who have taken antirabies treatment.

MORTALITY AMONG PERSONS GIVEN ANTIRABIC TREATMENT BY SPECIES OF BITING ANIMAL, 1927-44.

(Health Organization League of Nations)

Biting Animal	No. Persons Treated	Percent of All Treatments	Deaths from Rabies	Percent Mortality
Wolf	1,827	0.2	159	8.70
Jackal	34,846	1.8	514	1.48
Dog	1,100,249	81.2	3,270	0.30
Cat	64,911	5.0	23	0.04
Solipeds	10,240	1.0	2	0.02
Humans	11,134	1.1	1	0.01
Ruminants	23,386	2.0	1	0.004
Others	19,573	2.0	15	0.08
Species not stated	24,592	5.7	30	0.12
Total	1,290,758	100.0	4,015	0.31

In different parts of the world, different wild animals have been and still are responsible for the maintenance of rabies. The fox appears to be the principal wild animal vector of rabies in western Europe. Seven major outbreaks in this animal have been described between 1803 and 1925. In eastern Europe, the wolf appears to be important in perpetuating rabies in wildlife.

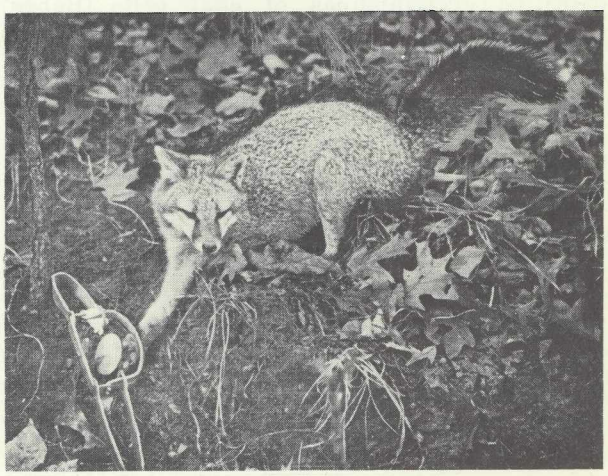
The jackal is the principal wild host and vector in India. Although this country has a great population of mongooses, and rabies in the mongoose has been described, it is not an important host of rabies in that area.

The situation in South Africa is in contrast with what has been described for India. In Transvaal, Orange Free State, and Cape Province, the yellow mongoose is the principal host and vector of rabies. Rabies also is found in other small, veld carnivora of the same family *(Viverridae)*.

In the United States, epizootics in skunks have been responsible for at least fifty cases of human rabies. A nickname for skunks in the West is "phobey" cat because of the animal's role in causing hydrophobia. In Kansas, in 1873, about forty people, primarily men who camped out on the plains, died of rabies caused by skunk bites. In Arizona, in 1907, rabid skunks were said to have caused the death of 10 people.

California, Oregon, and Nevada had a huge outbreak of rabies in wild animals in 1915 and 1916. The coyote was the principal vector in this case. To illustrate how a vigorous campaign of wildlife decimation will stop an epidemic of rabies and eventually eradicate it, Nevada's experience is worth citing. By 1931, that State had rid itself of rabies, but only after 89,000 coyotes, bobcats, and mountain lions were destroyed as well as several thousand smaller mammals.

Fox rabies has been on the increase in the United States since 1940. Especially involved have been the Southeastern States. However, New York State has a remarkable feature: dog rabies



Organized trapping programs have successfully controlled outbreaks of fox rabies in many parts of the country.

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has been controlled effectively while fox rabies is still rampant.

In those areas where wildlife rabies exists, there is also a correspondingly great loss from cattle rabies. New York State is such an example.

In South and Central America, an epidemiologic analysis of deaths of cattle dying with a paralytic disease led to the discovery of the most unusual case of wildlife rabies yet discovered. Vampire bats were found to be transmitting rabies to cattle and humans. In studying this disease in bats, it was found that some of these animals could transmit the virus by biting and yet not show symptoms of rabies themselves. Because the most complete study of rabies in vampire bats was done on the West Indian island of Trinidad, the disease has been named "Trinidad rabies" and the little mammal has been called euphemistically the "Trinidad bat."

As far as control of rabies is concerned, there are two distinct cycles: (1) the natural disease as it occurs in wild animals, and (2) the urban type which is maintained in the domestic dog. For each type, the methods for control and eradication are known and there is no reason to assume a defeatist attitude toward the eradication of rabies just because it has found its way into wildlife. There are areas in which wildlife rabies has been eradicated, notably States of the Rocky Mountain region of the United States, and in England and Scandinavia, where rabies has been eradicated even though it had invaded wildlife.

The Comparative Regional Prevalence of Dog Rabies in the United States, 1949

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This is a preliminary review of the study of rabies in recent years in the United States. Acknowledgment is made to the State health departments which have cooperated in this review by preparing special tabulations of reported animal rabies data by county, month, and type of animal for 1949. The Public Health Service Regional Offices have facilitated the project by collecting and forwarding data as it was available.

The reporting of rabies in animals varies not only with prevalence of the disease from area to area, but also with the effort applied in discovering it. The present portion of the study has been limited to the disease in dogs, since it is probable that the close association of dogs to humans leads to less variation in reporting than for wild animals.

This close association indicates, further, that in the absence of a better measure, it is possible to devise a crude index for the comparison of the prevalence of the disease from one area to another in the United States. Presentation of the distribution of rabies in terms of reported cases per State does not provide an adequate basis for the epidemiological analysis of the disease.

Such an approach falsely stresses the political boundary of a State as the limitation of the infection in that area and does not include a measure of such important related factors as human and animal population concentrations in the region under consideration.

In an attempt to avoid these shortcomings, use has been made of an index given by the number of reported dog cases divided by the human population, by county. Such a ratio, in a given area, is a rough measure of the probability of human

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