

ZOOLOGY

Monkeys Not Dangerous As Disease Carriers

Placid Cow May Plague Owner with Any of Eight Kinds Of Sickness; Dog Transmits But One—A Serious Disease

MAN'S nearest zoological kindred, the monkeys and apes, are less dangerous to him as disease carriers than are some of the other, more specialized groups of animals. About the only monkey-borne disease that may be transmitted to man is yellow fever, whereas rodents and hoofed animals bring him a score or more of maladies, William L. Jellison, U. S. Public Health Service bacteriologist, told the American Society of Mammalogists meeting in Chicago.

Man's closest animal friend, the dog, probably the first animal to be domesticated, is carrier for only one disease, although that is a very serious one—rabies. But the placid cow may plague her owner with any of eight kinds of sickness: tuberculosis, anthrax, foot and mouth disease, undulant fever, actinomycosis, pox, scarlet fever and streptococcus infection. Other illnesses contractable from hoofed animals include swine erysipelas, trichinosis, glanders and equine encephalitis. Curiously enough, these troubles are all contributed by domesticated hoofed mammals; deer, antelopes and peccaries or wild pigs are not known to carry diseases to human beings.

Rodents and rabbits are bearers of fewer diseases, though some that they do bring us are among the most dangerous of all our ills. The list includes plague, tularemia, spirochaetal jaundice, rat bite fever and one type of food poisoning. Here again it is noticeable that

the biggest score is chalked up to the debit of "domestic" rats and mice—although squirrels and rabbits, as carriers of plague and tularemia, cannot exactly be rated as innocents.

One striking feature, to which Mr. Jellison attached considerable importance, is the fact that animals with a smaller sum-total of bodily specializations than man and the other primates are of no importance as disease carriers, with the sole exception of the rabies-carrying dog. On the other hand, the more highly specialized animals, including rodents, rabbits and hoofed animals, are also the carriers of the largest number of diseases.

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Trace Yellow Fever

"BRINGING 'em back alive" in large numbers was an important feature in the Rockefeller Foundation's campaign to trace South American jungle yellow fever to its source, Raymond M. Gilmore of the American Museum of Natural History told the meeting. The research program included live-trapping of every obtainable wild mammal species in the area, to determine which of them were capable of harboring yellow fever virus.

Several different types of traps were used, and they had to be placed in trees as well as on the ground. Cebus monkeys were easiest of all animals to catch, because of their inquisitiveness,

greediness and aggressiveness. The same box traps that caught them also often trapped porcupines and opossums. In all, between four and five thousand specimens of all kinds were trapped.

The study disclosed that not only monkeys but opossums are possible reservoirs of yellow fever. Other mammals do not seem to figure.

Likelihood of a species to be a yellow fever carrier was determined by putting its blood through an immunological test. If it showed immunity, it was an indication that the animal had had yellow fever and recovered.

The test could also be used as an index of how recently the fever had been in a given vicinity. If susceptible animals less than two years old had no immunes among them, while older ones showed immunity, it meant that the disease had been there more than two years ago. If no animals of any age showed immunity, there had been no yellow fever in the neighborhood for a long time.

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Weasels Feed on Mice

WEASELS in the Big North Woods prefer mice. The second choice is shrews, which are mouse-sized animals that feed on insects (and each other) but are not related to mice. The rest of the weasel diet is scattering, and birds do not figure importantly in it.

These facts, based on studies of the short-tailed weasel in northern Minnesota, were presented before the meeting by Shaler E. Aldous of the U. S. Fish and Wildlife Service and J. Manweiler of the U. S. Soil Conservation Service.

Their figures, representing the contents of a considerable number of weasels' digestive organs, showed that more than half of the carnivores' food consists of mice, about two-fifths of shrews, and the scattering remainder including birds, rabbits, squirrels, porcupines, fish, and even other weasels. It is believed that some of these, like rabbits, porcupines and remains of a wild duck, were carrion finds, for such animals are too large for weasels to attack under ordinary conditions.

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The earliest known bird, *Archaeopteryx*, which lived millions of years ago, probably laid its eggs on decaying tree stumps, instead of building a nest, says one scientist.

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