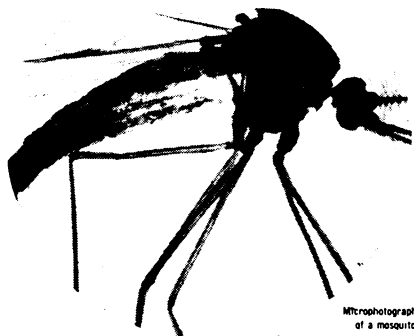


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Microphotograph of a mosquito. Courtesy of Eastman Kodak Co.



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## PUBLIC HEALTH

# Radioactive Meat Eaten

➤ SOME ESKIMOS are being exposed to radioactive fallout higher than the permissible levels set by the Government.

The strong concentration of cesium 137 found among Eskimos at Anaktuvuk Pass is expected to climb even higher this year than last, four scientists reported in *Science*, Feb. 5, 1965.

The abnormally high radioactive levels are due to the Eskimo's diet of caribou and reindeer. The animals have high levels of radioactivity because they feed on lichens, which have concentrated the "hot" debris from nuclear bomb tests, particularly those in Russia.

Cesium 137 is a relatively long-lived radioactive material similar to phosphorus. When taken into the body, it accumulates in the muscles where it can cause a genetic hazard in sufficient concentration.

The National Committee on Radiation has established guides specifying the acceptable dosages of radioactivity to reproductive organs. Under these guides, the average level of cesium 137 is set for the general population at an exposure not exceeding 300 nanocuries for the general population, with a limit of 3,000 for any one individual.

The scientists also reported that they found sample of radioactive sodium 22 in the urine of Anaktuvuk Pass inhabitants. The level was 1,200 times higher than for persons living in Richland.

Although the guides are for peacetime uses of atomic energy, they are the only ones available. A nanocurie is a billionth of a curie, which is a unit of radiation measure. The survey of Alaskan Eskimos showed that adults had an average body level of 1,280 nanocuries.

One native had the exceedingly high level of 2.4 microcuries. A microcurie is a millionth of a curie, 1,000 times greater than a nanocurie. However, the highest level found was in a non-native living mainly on caribou meat—three microcuries.

The survey was made by Drs. Harvey E. Palmer, Wayne C. Hanson, Bobby I Griffin and Leslie A. Braby of Hanford Laboratories, Richland, Wash., which was run by General Electric Company for the Atomic Energy Commission. The facility is now known as AEC's Pacific Northwest Laboratory.

• *Science News Letter*, 87:142 February 27, 1965

## ZOOLOGY

# Wild Dogs Keep Order

➤ WHILE HENS keep order in their barnyard with the help of a pecking order, whereby the stronger pecks at the weaker, wild African hunting dogs seem to have worked out a gentler system with what behaviorists call a "crawling order."

In the Serengati steppe of Tanganyika, a pack of African hunting dogs has been closely observed for three months to establish what kind of social ties are accepted and what keeps the pack together. Contrary to expectations, no signs of an aggressive pecking order were found. All grown-up members of the pack care for all the young ones. Certain males seem always ahead in

readiness for hunting and they drag the others along. Weaker members tend to revert to cub behavior, begging food and favors from the stronger members.

During the peaks of pack activity, mornings and evenings, the most striking behavior is the following: young and old crawl up and surround the successful hunter, begging for food. They dance around him, tails down, with half open mouths, ears close to the head, muzzling the lips of the hunter. The hunter thereupon turns aside and regurgitates some food.

The young cubs in their turn beg the older ones as they approach this food, going so far as to muzzle their lips. The older dogs chase the young ones away with bites only if they do not want to regurgitate or just did.

When members of a pack resting outside return to the cave, they are closely observed by the dogs inside. The insecurity of the newcomer is demonstrated by his outstretched nozzle, ears held closely to his head and hanging tail. This behavior resembles closely the food-begging attitude of young and old.

The smooth cohesion of the whole pack is facilitated by this infantile behavior of the members among themselves. The strongest female guarding her cubs seems to be beholden to no one. She is the number one animal, while the others, in descending order, demonstrate their subordination.

The study was reported in *Naturwissenschaften*, 51:567, 1964, by Dr. Wolfdietrich Kuehme, Max-Planck Institute for Physiology of Behavior, at Seewiesen near Munich.

• *Science News Letter*, 87:142 February 27, 1965

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