

Science Looks Into Caribou 'Foot Rot' Disease Among Alaska Herds

Occasionally over the past years reports of crippled, limping caribou have come in from bush pilots, guides or other interested parties. Seldom has it been possible to either verify the report or determine the cause.

At the same time since the early days of the reindeer industry, crippling of reindeer by "foot rot" infections has been a more or less well known occurrence. Recently it has been possible to verify the "foot rot" was also a cause of two separate occurrences of crippling in caribou.

In August, 1961, petroleum geologists working on the North Slope reported to the Department that crippled and dead or dying caribou were being seen in small, but nevertheless unusual numbers.

Through the cooperation of the oil companies working out

of Umiat, a helicopter was made available for a survey flight. A severely affected cow with an infected foot and lungs was collected.

The animal was extremely emaciated and no doubt not far from dying. The lesions in the foot and lungs were later examined by personnel of the Arctic Health Research Center and the cause was tentatively ascribed to infection by the "foot rot" bacterium.

Because of the inevitable delay in getting the specimens into the laboratory a firm diagnosis could not be made. Another result of the survey flight was the conservative conclusion that only about 1% of the animals were affected.

During the latter part of October, 1968, guides hunting near Black Lake on the Alaska Peninsula reported commonly seeing crippled or dead caribou. At that time Department personnel going into the area during the course of investigations on moose and on brown bear were alerted to the reports and provided with materials for collecting suitable specimens.

A large, fat bull with a severely infected foot was collected. In spite of the excellent condition of the animal and the fact that the infection was apparently limited to the foot, the bull was extremely lethargic and easily approached on foot.

It "didn't even want to stand up."

Initial bacterial cultures made in the field from the foot were eventually studied by personnel of the Arctic Health Research Center.

This time it was positively determined that the common "foot rot" bacillus was the infecting organism. Again survey flights in the area revealed that the "epidemic" was again of minor proportions.

The "foot rot" bacillus commonly occurs in all parts of the world where it infects the feet and also less commonly other organs of both domestic and wild mammals and birds. It also commonly occurs in the digestive tracts of man and lower animals without causing disease.

It is only when conditions in the environment and in the "candidates for infection" are favorable that "foot rot" or other disease lesions are produced.

Thus it appears likely that circumstances leading to the cutting of the feet of caribou (eg. attack by flies in areas of sharp shale rock) favor foot rot, particularly during damp weather.

Animals in poor condition are probably also more susceptible. Human beings may develop lesions of the skin and underlying tissues from directly handling infected animal parts of organs with bare hands.

Such infections are effectively treated with antibiotics and easily avoided through the common sense application of simple, personal hygiene.

Do not get exudates from wounds or sores on game animals, etc. on your hands. If you do, wash your hands as soon as possible. Do not handle animals found lying dead or those that act abnormal (eg. lethargic, etc.).

If you cut your hands while dressing game, apply first aid and use rubber gloves to finish the job. Rubber gloves are like safety belts or any other simple, commonly accepted precautionary measure. . . worth several "pounds of cure."

Human beings experience far greater risks of becoming diseased or suffering serious disability in the widely practiced, everyday acts of frequenting crowded places, driving on crowded highways, breathing polluted air, etc. than in taking and consuming fish and game.