

parasite disports itself until ready for its new host, a species of water snail, making directly for its liver, and there securing itself. A certain further development takes place in this liver tissue and when completed the snail crawls up a blade of grass to sun itself. The parasite now emerges, attaches itself to the grass and forms a protective covering of lime about itself. Here it awaits a new host which in one instance is the rabbit. The rabbit eats the grass, the lime covering is dissolved from the parasite in the stomach and the parasite burrows through the tissues of its new host until it finds a suitable resting place, where, at the expense of this host it envelopes itself in a watery bag to await the arrival of a fox to devour the rabbit and thus gain entrance to the intestine, where havoc is again wrought. This, then, is a hurried sketch of the various stages of development which this parasite must undergo.

With a knowledge of the means by which the above types of parasites develop and infest the foxes, we are prepared to undertake such precautions as will prevent their causing trouble and financial loss to the industry.

Not only are there intestinal parasites which invade the fox, but a fluke which invades the liver has also been found. How dangerous this may prove is at present an unknown factor which future investigation alone can reveal.

*External Parasites.*—There are parasites which inhabit the external portions of the body, such as lice and fleas, but the most serious is the mange parasite which burrows into the skin. Mange has occurred among foxes, and great care should be exercised in preventing its introduction. Its treatment has presented extreme difficulties, and in many instances is of little avail. As the fox is so different from other animals its treatment must be undertaken by skilled direction.

*Febrile Infectious Diseases.*—Under this heading will be classed those disorders which are manifested by a rise in the body temperature. There is no doubt but that the fox is susceptible to many disorders of an infectious nature accompanied by fever. Their classification, however, at the present time is out of the question, and I will consider only distemper.

*Distemper*, similar to that occurring among dogs and cats, has occurred among foxes and is an ever-present menace. With distemper, as with the other disorders of an infectious nature, skilled treatment based upon the symptoms presented must be at hand, and each case dealt with as it occurs. My view here is, that this, as well as all of the other infectious diseases, are best dealt with before they gain access to the ranch. Once they have occurred, each instance must receive individual treatment, as so many variations from the classical type are observed.

*Non-Febrile Infectious Diseases.*—Very few non-febrile infectious diseases are observed in the fox, other than the parasitic infestations which have already been dealt with. One infection, rabies or hydrophobia, is common to all known animals and to man. On account of the danger of infecting man from the bite of a rabid animal, it is highly desirable that it should be here recorded as an affection which may infect the fox.

*Rabies* is an infection that can be passed only by the bite of a rabid animal. How much danger there is of this becoming epizootic among captive foxes is unknown, but to be transmitted one fox must be bitten by some rabid animal or a rabid fox, hence the ranch construction should be such as to provide against this contingency should a case unfortunately occur. History records that the Duke of Richmond died near Ottawa of rabies contracted from the bite of a pet fox. I have unsuccessfully endeavoured to secure information regarding the fox in question. At that time rabies was not known to be present among other animals in the locality. We have, however, the report of a case of rabies in man at Victoria, B.C., contracted in the Yukon from the bite of a tame wolf. In the Southwestern States the disease has been reported to be conveyed by skunks to men sleeping in the open.