

Fact Sheet Feuille de renseignements



Ministry of
Natural Resources

Ministère des
richesses naturelles

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FOX RABIES – THE FACTS

What is Arctic fox rabies?

- The Arctic fox variant is a strain of rabies.

Is arctic fox rabies different from other strains of rabies?

- In Ontario, Arctic fox rabies predominantly infects Red foxes and Striped skunks. All strains of rabies have the potential to infect and kill any mammal, including humans.

What is the history of Arctic fox rabies in Ontario?

- This strain of rabies may have been present in southern Ontario sporadically over many centuries. In 1819, the Governor General, the Duke of Richmond, died of rabies in the village of Richmond (near Ottawa) from the bite of either a pet fox or dog. Although there were incidences of rabid dogs in Ontario prior to the 1950s, there was no rabies in terrestrial wildlife until 1954, when Arctic fox rabies entered the province from the north. It reached southern Ontario in 1956. From 1959 to 1992, with the exception of 1961-63, southern Ontario annually reported more rabid animals than any other state or province in North America.

What is the current status of Arctic fox rabies in Ontario?

- The Arctic fox strain was completely eliminated from eastern Ontario in 1989-95, by aerial drops of baits containing rabies vaccine for foxes. That was the first attempt at rabies control in North America. In 1994, the program was extended right across southern Ontario. The disease presently persists, chiefly in skunks, and at low levels, in the area south of Georgian Bay and east of Lake Huron. There have been renewed invasions from the north. In 2002, there was an outbreak in the Sudbury and Kirkland Lake areas, following on the heels of an rabies outbreak around Cochrane in 2001.

Response by the Ministry of Natural Resources (MNR)?

- The MNR is a leader in the development of vaccination techniques for wildlife, such as foxes and raccoons. One of these techniques – the aerial baiting program – has received worldwide acclaim for its success in eliminating fox, raccoon, and coyote rabies from large areas.
- Research and aerial baiting efforts by the MNR have centred on immunizing wild foxes. Scientists now have evidence that if they are able to immunize a large enough percentage of the “carrier species” population that spreads rabies, the disease will die out completely.
- Current baits contain 1.8-millilitres of rabies vaccine sealed in a small plastic blister pack. This pack is embedded in a mixture of fat, wax, sugar, oil, and scents. The rabies vaccine is a live virus and, therefore, quite delicate. It has to be absorbed in the mouth, because it would be destroyed if it were released in the stomach.
- Research has found a bait attractive for both foxes and raccoons to eat, but also one easy to mass-produce, store, handle and distribute over large areas. Most importantly, researchers need to ensure the blister pack of vaccine is chewed along with the bait. The bait is a khaki green square measuring 3.5 cm x 3.5 cm x 1.0 cm. It has a label with a contact number.
- Each fall, ministry aircraft now drop baits for wild foxes at a density of 20 baits per square kilometer along flight lines spaced two kilometers apart. Twin Otter aircraft are outfitted with special bait-dispensing machines. Navigation uses the latest satellite and computer technology to spread baits as uniformly as possible, and record where they went.
- In 2006, approximately 650,000 ‘Arctic fox strain’ rabies vaccine baits were distributed in southwestern Ontario. The baiting zones were determined based on recent information from the Canadian Food Inspection Agency indicating locations of confirmed fox rabies cases.

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For more information visit rabies.mnr.gov.on.ca