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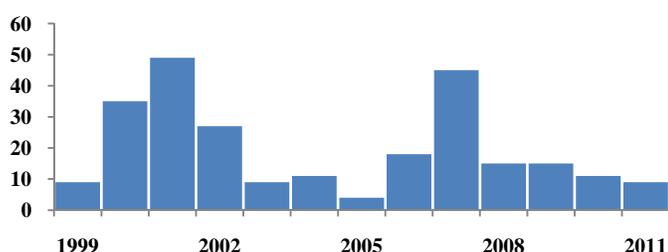
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2011 Animal Rabies in Northwestern Alaska

Introduction

Rabies is enzootic among the fox populations of northern and western Alaska, with periodic epizootics (epidemics among animals) documented every 3 to 5 years (Figure). The last epizootic was in 2006–07. Although rabies has been documented in animals every month of the year, most cases are usually reported during early fall through early spring. In early spring, foxes tend to move inland off the sea ice, increasing the likelihood that they come into contact with domestic animals or humans. Dogs can readily serve as a transmission vehicle of rabies virus from wildlife to humans; therefore, it is especially critical during these seasons to ensure that adequate rabies prevention and control measures are in place. Reducing rabies in Alaska fox populations is not yet feasible; therefore, the mainstays of preventing human rabies cases are public education of the risk in the wildlife (fox) population, vaccination of domestic animals against rabies, and prompt administration of rabies post-exposure prophylaxis to persons potentially exposed to rabies virus.

Figure. Cases of Animal Rabies, Alaska 1999–2011*



*The 2011 data are through March 23.

Recent cases of animal rabies

Of the 16 animals evaluated for rabies from January 1 through March 23, 2011 at the Alaska State Virology Laboratory (ASVL) in Fairbanks, nine tested positive (Table). Five were arctic foxes and four were red foxes. Although no humans were exposed to the rabid animals, several dogs were attacked. Dogs not previously vaccinated against rabies were euthanized.

Table. Animal Rabies (n=9), January–March 23, 2011

Animal	Date tested positive	Borough or Census Area
Arctic Fox	Jan 25	North Slope
Red Fox	Feb 11	Northwest Arctic
Arctic Fox	Feb 22	Nome
Arctic Fox	Mar 3	North Slope
Arctic Fox	Mar 3	North Slope
Red Fox	Mar 3	Bethel
Arctic Fox	Mar 10	North Slope
Red Fox	Mar 16	Northwest Arctic
Red Fox	Mar 16	Bethel

All rabid animals came from Alaska's north and west coasts. Finding rabies in an animal from one village signals the need for heightened awareness and prevention activities in that village. However, because rabies is reservoirized in mobile fox populations with occasional spill-over to dogs, a positive result also signals broader geographic risk. There is no current systematic surveillance of rabies among Alaska fox populations.

Recommendations

1. Section of Epidemiology (SOE) staff are available 24-hours a day for consultation in determining what constitutes a rabies exposure, for assistance in submitting animals for testing, and for distribution of rabies post-exposure prophylaxis for persons with confirmed/suspected rabies exposure. Call 907-269-8000 Mon-Fri 8AM–5PM, or 800-478-0084 after-hours.
2. In consultation with SOE, ASVL performs rabies testing for certain animals. Animals that are accepted for testing are generally those for which public health action will be taken, i.e., decisions about post-exposure treatment, management of exposed domestic animals, or sentinels for rabies activity in a community/region. ASVL's specimen submission guidelines are available on-line.¹
3. Alaska State regulations mandate that all dogs, cats, and ferrets be appropriately vaccinated against rabies; unvaccinated animals can be confiscated or euthanized [7AAC 27.022(a)6]. This regulation exists to protect both human and animal health. Animals should be vaccinated against rabies at the first opportunity after age 12 weeks (3 months). The first rabies vaccine given must be followed 12 months later by a booster dose. Subsequent booster doses should be given according to the manufacturer's instructions; for dogs and cats, this is generally every 3 years.
4. Animal rabies vaccinations may be given by veterinarians or certified lay vaccinators. SOE's Lay Vaccinator Program certifies local personnel in rabies enzootic regions of Alaska to provide animal rabies vaccinations as a public health service to a community to reduce the likelihood of human exposure to rabies virus.
5. After animal rabies is found in a village or region, control measures must be instituted immediately to minimize spread of rabies among susceptible animals and exposure of humans to rabid animals. Such measures include: 1) promoting vaccination of susceptible domestic animals; 2) revaccinating previously vaccinated animals exposed to a rabid animal and then confining them for 45 days; 3) euthanizing unvaccinated animals that were exposed to a rabid animal; and 4) confining, tying-up, or otherwise preventing dogs from running free in the community.^{1,2}
6. Rabid animals may display obvious neurologic impairment (a staggering gait or inappropriate response to stimuli) but also may display subtle signs (mild drooling, lassitude, or reluctance to move). Any animal in a rabies enzootic area that has bitten someone and then dies without an obvious cause should be evaluated for rabies.
7. All abnormally acting wildlife should be reported to the nearest Alaska Dept of Fish & Game office,³ and a local public safety or animal control authority.

Acknowledgement

We thank the ASVL staff for processing and evaluating specimens.

References

1. Section of Epidemiology Rabies Information webpage. Available at: <http://www.epi.alaska.gov/id/rabies/>
2. National Association of State Public Health Veterinarians, Inc. Compendium of Animal Rabies Prevention and Control, 2008. Available at: <http://www.nasphv.org/Documents/RabiesCompendium.pdf>
3. Alaska Department of Fish and Game. Contact information by locations <http://www.adfg.alaska.gov/index.cfm?adfg=contacts.main>

Animal Bite Reporting

- Animal bites to humans are not specifically reportable to SOE; SOE staff may refer callers to the appropriate local jurisdiction. Depending on location, there may be reporting ordinances to local health or animal control authorities for routine follow-up.
- In regions served by Alaska Native health corporations, bite reports should be made to regional environmental health offices that will coordinate follow-up investigations.