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Community Awareness of Wildlife Disease*

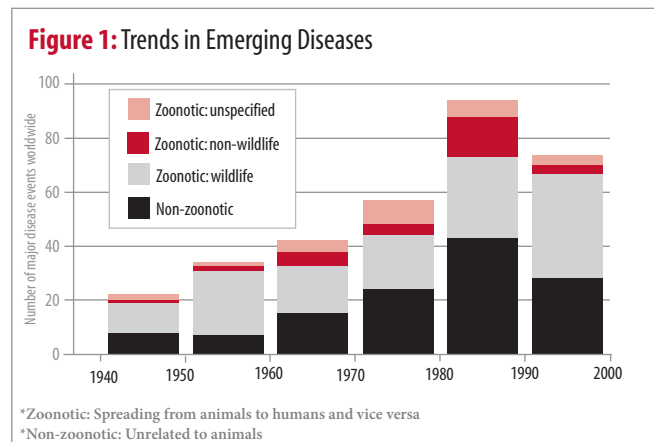
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What is the Issue?

New Yorkers spent an estimated 13.5 million days in 2006 observing, feeding, or photographing wildlife.¹ Accompanying this affinity for wildlife are some risks, including the transmission of disease from wildlife to humans, companion animals and livestock. Diseases originating in wildlife currently constitute the majority of all newly discovered or rapidly proliferating diseases that infect humans worldwide. This is likely to be a growing concern in New York State (NYS). It is important that communities respond to this increased risk by providing comprehensive information in a coordinated and measured manner.

Scale and Trajectory of Wildlife Diseases

Between 1940 and 2000, newly emerging wildlife-associated zoonotic diseases (diseases spreading from animals to humans and vice versa) increased each decade (Fig. 1). This increase was fueled in part by a growing human population, global movement of humans and animals, and expansion of human communities into wildlife habitats. Many scientists expect global climate change to increase environmental stress on wildlife, lengthen seasons for exposure to disease, and expand the geographic ranges of pathogens and vectors that contribute to the spread of diseases. Such changes facilitate the spread of diseases by amplifying the vulnerability of wildlife to infection.



Source: Adopted from Jones, K. E., et al. 2008. Global trends in emerging infectious diseases. *Nature* 451:990-993

Some Wildlife-Associated Diseases in NYS

Lyme Disease is caused by bacteria transmitted primarily by deer ticks which can be active anytime the temperature is above freezing. Lyme disease is treatable with antibiotics if diagnosed early enough, but prevention is also essential.

Rabies, a virus that attacks the nervous system of mammals, occurs throughout NYS. Exposure to saliva or nerve tissue from a rabid animal can transmit rabies to humans. Animals commonly associated with rabies are raccoons, bats, skunks, and foxes. Rabies is treatable, but vaccination must begin within a few days of exposure to avoid paralysis. Pet vaccination and avoiding physical contact with wildlife are the best ways to prevent rabies.

¹U.S. Department of the Interior (USDI), Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2008. National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

West Nile Virus is a mosquito-borne viral infection that can cause illness or death. It has been reported in birds throughout NYS. People can prevent this disease by eliminating where possible standing water and other mosquito habitat near their homes and by using repellents.

Highly pathogenic avian influenza has not been detected anywhere in the USA, but federal and state government agencies are continually monitoring for it. Almost every human case of avian influenza worldwide has resulted from direct contact with poultry. Concern exists that continual mutations in avian influenza virus could produce a virus that spreads more easily from birds to humans and between humans.

Community Responses

Citizens can obtain information about local wildlife issues from a number of sources—elected officials, Cooperative Extension, local health departments, local or regional offices of the Department of Environmental Conservation (DEC), public safety offices (county and municipal police departments), nuisance wildlife control operators (NWCs), animal wardens, and nature centers. Coordination among information sources improves message consistency, thereby reducing confusion and concern among community members. Providing journalists with up-to-date information is important, as mass media is often the primary source of information about wildlife diseases. Producing informational resources tailored to each specific community, such as brochures, radio PSAs, newspaper articles, etc., can improve local communication effectiveness.

Proactive community outreach about wildlife diseases should be crafted carefully to ensure that the risks to people, pets and livestock are neither under-estimated nor over-estimated. Individual and community responses to a wildlife-associated disease can result in a wide range of effects, ranging from backlash against wildlife conservation and open space preservation if threats of disease are exaggerated, to increased risk to human and animal health if threats are not taken seriously. The challenge is to offer knowledge and behavioral suggestions that encourage people to take appropriate precautionary steps (see web links at bottom of page).

Conclusion

The increasing opportunities for humans to interact with wildlife create potential risks of transmission of wildlife-associated zoonotic disease. A well-coordinated and measured community response includes developing and disseminating information about wildlife disease, reducing exposure/risk, identifying where to turn to if help is needed, and individuals behaving responsibly to prevent risks to the health of others in their communities. ▲

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For further information:

Disease protection and prevention: http://www.extension.org/pages/Wildlife_Diseases
Lyme Disease: www.health.state.ny.us/diseases/communicable/lyme/fact_sheet.htm
Rabies: www.health.state.ny.us/diseases/communicable/rabies/fact_sheet.htm
West Nile Virus: www.health.state.ny.us/diseases/west_nile_virus/fact_sheet.htm
Avian Influenza: www.health.state.ny.us/diseases/communicable/influenza/avian

