

MANAGEMENT OF HUMAN-RACCOON INTERACTION IN THE MIDST OF A RACCOON RABIES OUTBREAK

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The rabies epizootic that had affected raccoon (*Procyon lotor*) populations in the southeastern United States since the mid-1950s jumped to West Virginia in 1977, the apparent result of importation of raccoons from Florida. During the following 14 years, the disease spread through raccoon populations in the mid-Atlantic states, so that by early 1991 infected raccoons had been identified in areas of West Virginia, Virginia, Maryland, Delaware, the District of Columbia, Pennsylvania, New Jersey and New York. Although raccoons have remained the primary vector of the disease throughout the affected areas, spillover has occurred into other wildlife, including skunks (*Mephitis mephitis*), red (*Vulpes vulpes*) and gray (*Urocyon cinereoargenteus*) foxes, coyotes (*Canis latrans*), woodchucks (*Marmota monax*), white-tailed deer (*Odocoileus virginianus*), squirrels (Sciuridae), rabbits (*Sylvilagus floridanus*), and opossum (*Didelphis marsupialis*).

As the disease spreads into previously unaffected raccoon populations, an epizootic period exists for 1-2 years, during which the number of cases in raccoons is very high. This has been followed by an enzootic period when cases in raccoons are still common, but far less frequent. The disease has not been observed to disappear from affected raccoon populations.

Each time rabies in raccoons has spread into an area that previously had been free of rabies in terrestrial mammals, the interactions between humans and wildlife has been suddenly and dramatically affected. The number of requests for agency responses to rabies-suspect wildlife or nuisance wildlife prob-

lems increases greatly. Each human contact with raccoon saliva or nervous tissue must be considered a potential rabies exposure. This requires the destruction and laboratory examination of the raccoon for evidence of rabies infection. The demand for rabies diagnostic services has exceeded capacity in several states requiring adjustments to the criteria for accepting specimens. The cost of human post-exposure vaccination following contact with rabid wildlife, or with animals not available for examination, has been high. The expense of treating 1 person ranges from \$600-1,200. About 200 people were treated in New York State during 1990, and the frequency of treatments was increasing significantly in early 1991.

The threat of rabies exposure to humans and domestic animals has forced difficult changes in wildlife management strategies. For example, the rehabilitation and release of injured, or sick and orphaned young of vector species cannot be encouraged during an outbreak. Although vector-species population reduction has not proven to be a generally effective or practical method of controlling rabies outbreaks, the raccoon rabies epizootic has necessitated population management strategies in certain high-risk areas (i.e., parks and campgrounds). Compulsory rabies vaccination of dogs and cats, and provision of animal vaccination clinics have been required. Carefully prepared public education programs become particularly important, not only to reduce avoidable human rabies exposures, but also to prevent exaggeration of the risks that could lead to unnecessary destruction of wildlife.