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# ORAL RABIES VACCINATION—A PROGRESS REPORT

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## ORAL RABIES VACCINATION—A PROGRESS REPORT

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**Extended Abstract:** Oral rabies vaccination (ORV) targeting specific wild *Carnivora* species has emerged as an integral adjunct to conventional rabies control strategies to protect humans and domestic animals. ORV has been applied with progress toward eliminating rabies in red foxes (*Vulpes vulpes*) in western Europe and southern Ontario, Canada. Beginning in the 1990's, coordinated ORV was implemented in Texas to contain and eliminate variants of rabies virus in the gray fox (*Urocyon cinereoargenteus*) and coyote (*Canis latrans*) and in several eastern U.S. States with the goal of preventing spread of raccoon (*Procyon lotor*) rabies. The primary components of the control strategy include: enhanced rabies surveillance, coordinated ORV, use of natural barriers to bolster ORV, and contingency actions to treat emerging foci. The National Rabies Management Program, which is a cooperative program that began in 1997, has progressively grown to meet rabies control needs and currently includes ORV in 16 eastern states and Texas and Arizona. Annually, approximately 11 million baits are distributed over about 200,000 km<sup>2</sup> in strategic locations to contain and eliminate variants of the rabies virus in coyotes, gray foxes and raccoons. Canine rabies in coyotes has been eliminated from Texas and a maintenance ORV barrier created along the Rio Grande in Texas has been challenged in 2001 and 2004, underscoring its importance in preventing re-infection with canine strain of rabies from Mexico. Hotspots in or near ORV zones targeting gray fox rabies, as well as breaches in ORV zones focused on raccoon rabies in Ohio and Massachusetts (Cape Cod) continue to be treated to restore the integrity of original ORV efforts. Development of new or improved oral rabies vaccines and baits that are also effective in vaccinating striped skunks (*Mephitis mephitis*) are among several key challenges facing the program. Skunks appear to help maintain the raccoon variant and serve to re-infect areas (Guerra et al. 2003), potentially confounding our ability to achieve long-term rabies management goals with currently available tools. A more comprehensive discussion of the current status of ORV in the U.S., including advances in enhanced rabies surveillance, application of contingency action plans, and research and management initiatives to address challenges facing rabies control in terrestrial wildlife nationally is provided by Slate et al. (2005).

**Key words:** rabies, vaccination

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