Deer Advisory Council of Northern Virginia
Improving Understanding, Providing Expertise

Humane Impacts of White-tailed Deer Management In Northern Virginia

Humane issues are important to white-tailed deer (*Odocoileus virginianus*) conservation. To be effectively understood, they require current and comprehensive information. Humane impacts of different forms of deer mortality and management can be compared in terms of the levels of *time (duration)* and *trauma (discomfort or distress)* involved in each.

While deer mortality can be uncomfortable to discuss, failure to understand and address it can create circumstances that are inhumane, tragic, and frequently avoidable. By evaluating the comparative time and trauma associated with deer living conditions and mortality, as well as the potential to reduce inhumane aspects through active management of deer populations and the environment, excess time and trauma in the life and death of deer can be avoided.

Deer density controls play a central role because many forms of mortality risk depend on deer population density and can be reduced through effective management. The more deer per square mile, the higher the risk of deer vehicle collisions (DVCs), disease, malnutrition and starvation, and predation to individual deer. Human choices on whether and how to manage deer largely determine deer density and the time and trauma that deer will experience.

Wild deer in NOVA die from a variety of causes that include: regulated hunting (archery and firearms), regulated sharpshooting, illegal shooting, DVCs, disease, starvation, accidents, predation by coyotes and wild predators, predation by domestic dogs, insects, and other causes.

Archery and firearms hunting and DVCs are the most prevalent forms of deer mortality in NOVA, followed by sharpshooting, malnutrition and disease, and predators. These can be interactive. For instance, by reducing deer density, hunting can reduce DVCs, malnutrition, and disease.

Information from controlled archery programs in NOVA indicates that the typical time and trauma associated with mortality is low compared to other forms of mortality. Deer harvest by archers using modern equipment and practices is normally a rapid process, and 93 to 96 percent of deer are retrieved (recovered) by archers. Archery deer harvest recovery rates have increased significantly since first studied in the 1960's due to advances in technology and field practices. Controlled archery has been effective at culling urban deer herds in NOVA, with removals of 41 deer per square mile in the Fairfax County Deer Management Archery Program, for instance.

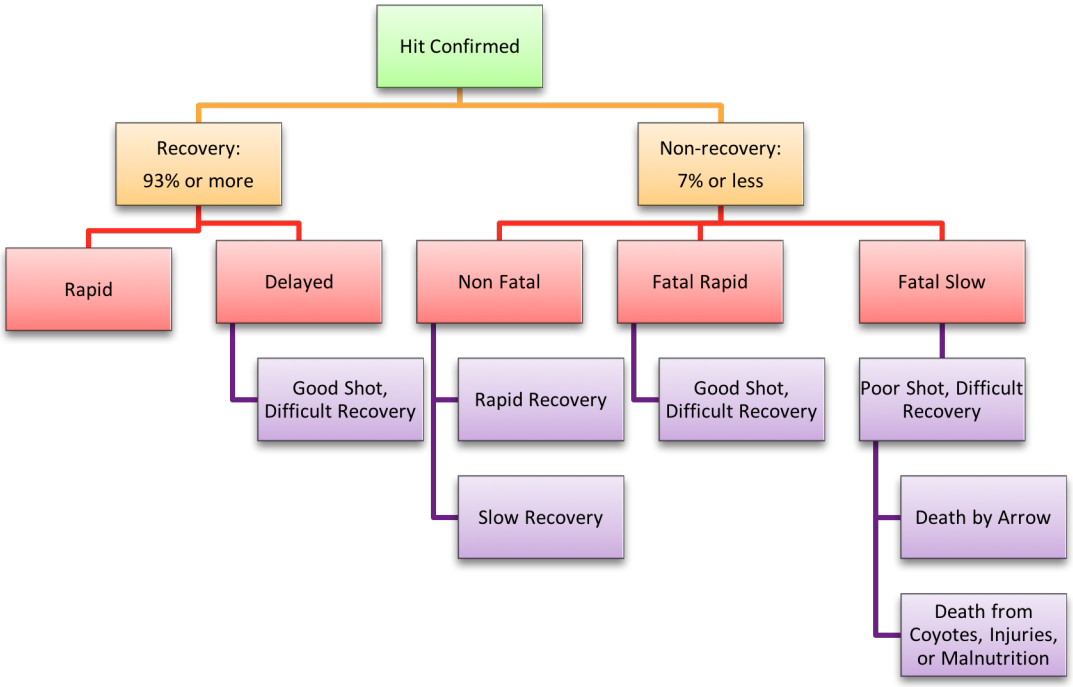
By comparison, DVCs typically involve high levels of time and trauma from direct and indirect causes. Only a fraction of deer involved in collisions die quickly. An estimated 75-83 percent die away from the roadside from injuries, or are disabled and succumb to predators or malnutrition. This is particularly true for low speed collisions that cause injuries that lead to later death.

While not primary causes of death in NOVA, death from disease, malnutrition and starvation, coyotes, dogs, accidents, insects, and other causes can involve high levels of time and trauma.

Sterilization and contraception do not reduce mortality risk for individually treated deer and may increase it. For free-ranging deer herds, the effectiveness of these practices at reducing deer density is severely limited by natural movement of deer across the landscape. This is particularly true if they displace effective density control programs or are used as stand-alone measures.

The DACNV Advisory Paper on "Humane Impacts of White-tailed Deer Management in NOVA" provides extensive review of local and national studies and technical information on the subject.

Disposition of Deer Recovered and Not Recovered in Archery Hunts



FCDMAP Archery Recovery Rates, 2014/15 and 2015/16