

WILDLIFE HEALTH FACT SHEET

TRANSLOCATION OF DEER

This fact sheet gives an overview and the challenges associated with a frequently proposed method of controlling overabundant deer – translocation - the movement of live captured deer from areas of high density in urban or suburban areas to other locations.

Over the past three decades, the number of urban/suburban areas in North America where deer are overabundant has grown enormously. The consequences of high deer density range from vehicle collisions and damage to agriculture crops and gardens, to the loss of the natural biodiversity of other animals and plants. Deer may also serve as disease reservoirs for certain infectious diseases and have injured people and pets. Particularly in urban areas, the options for controlling deer populations are limited.

This fact sheet deals with the translocation of deer as a means to resolve urban deer conflicts. However, it must be remembered that as long as there are sources of high quality food located in urban areas, deer will be attracted to them. There are well-meaning people in most communities purposely feeding deer, continuing to attract and support the deer population at artificial levels. The continuation of this practice would largely defeat any efforts to control urban deer populations. Communities can take proactive step to eliminate this problem by developing bi-laws that prohibit the feeding of deer or other species of wildlife that can become a real nuisance such as grizzly bears. Furthermore, communities can take steps to educate the public on landscaping treatments that are less likely to attract deer.

Options for Controlling Deer Populations – The number of deer in any given area is controlled by four factors: 1) birth, 2) death, 3) emigration (moving out), and 4) immigration (moving in). Emigration and immigration are difficult to influence. Immigration can be controlled to some extent through hunting and reducing deer density on the urban fringe. Humane killing by gunshot can be effective and humane, even in urban areas, especially when deer are shot by highly trained marksmen under controlled conditions or a well supported culling program is in place. Fertility control or contraception is another option and is discussed in a separate fact sheet. The remaining option - to increase emigration by physically capturing and moving animals (termed **translocation**) appears to be an easy and humane option, however, in reality is difficult, expensive, stressful to the deer, and can result in mortality rates of up to 85% injuries and deaths to deer from capture, transport and the difficulties adjusting to new habitats.¹

Translocation Challenges

Deer Biology

- Deer are distributed in the environment in “home ranges”, and share some of their home range with other, usually related deer. They are rarely concentrated at high numbers in one location unless artificially fed.
- In natural ecosystems most deer have seasonal ranges with movements timed to vegetation growth. Winter range is often at low elevation on south facing slopes with limited snow. In spring, the natural pattern for deer is to move to summer range.

Attracting Deer

- Many deer now remain in urban/suburban areas as residents, losing migratory movements and using landscaping and gardens for food sources and as home ranges. Targeting these resident deer for capture and translocation is difficult since feed is generally available year round and animals will be difficult to attract to bait. Baiting is more effective in the winter when most other vegetation is dead and dry.

Capture and Handling

- Some capture methods are designed for groups of animals (for example, large suspended “drop nets” that fall onto groups of animals) while other methods are designed to capture individuals.
- Drop netting deer is very labour intensive and requires time to teach the animals to come to the site under the net and, during the capture a large number of experienced personnel are required to ensure the safety of the deer and the handlers.
- Capturing groups of deer by herding or baiting them into corrals can be very dangerous and result in a high degree of injury and death.

- Since deer are rarely found in large groups, group capture techniques are rarely appropriate - capture by individual trapping is usually considered the best choice.
- “Clover” traps, light-framed nets in the shape of a large box, are most commonly used as they can be located in high conflict areas and moved easily. They catch one animal at a time but require monitoring when set, increasing the cost per animal.
 - For individual capture, animals are baited into these traps - once caught, the trap is collapsed on the animal. Captured animals must be physically subdued and restrained using blindfolds and leg hobbles or restrained with fast acting sedatives. Restrained deer are then carried to a suitable trailer or truck.
- Every handling step is stressful and risky for animals and handlers. The use of sedatives can make individual animals easier to handle, however, drugs can cause complications, increase the cost per animal captured and make the animal unsuitable for consumption.

Transport to Release Sites

- Deer can be transported in vehicles but there is a significant risk of injury and complications. Adult deer are not comfortable in close contact and will be aggressive to others, especially young animals.
- They should be contained as small related groups in partitioned areas or individually in crates in a darkened vehicle. Good ventilation is important to avoid overheating and any rough surfaces must be padded as deer are very likely to injure themselves trying to escape.

Release Sites

- Release sites at all times of year are difficult to find. White-tailed and mule deer are found throughout the interior of BC so any proposed release site in suitable habitat will most likely already be occupied by deer. As deer numbers tend to be in balance with forage availability, new additions to any given range would place increased stress, through competition for food, on the deer that were already at the release site.
- Deer captured in the winter must be released into suitable winter range. Releasing these stressed and disoriented animals into unfamiliar sites, especially in snow, will increase the likelihood of death by starvation.
- Translocated deer will not be familiar with the new habitat and this will increase the likelihood of starvation, predation.
- Deer can and do move up to and over 100 kilometres between summer and winter ranges. Release sites for translocated deer should be far enough from the capture site to reduce the likelihood of their returning. “Far enough” cannot be defined but a minimum of 20km has been suggested.
- Most valley bottoms and lower valley slopes preferred by deer are developed by humans for settlement or farming. It is difficult to find a release site sufficiently far from the capture site that the released deer do not return to or become a problem to another nearby community. Deer habituated to urban environments may return or move and seek out comparable residential locations from which they came.
- Translocation of deer may increase, initiate or exacerbate other land use conflicts, and/or disturb the existing population and habitat balance.

Animal Health and Welfare

- Any movement of animals also moves infectious organisms that the animals carry and this poses risks to the animals that occupy the release area. The translocated animals cannot be tested or medicated to completely eliminate this risk.
- Deer are highly sensitive to the stresses of capture and handling – care can be taken by experienced personnel but there is no way to remove all risk to their welfare. The literature describes very high levels of complications and death associated with this option.
- As discussed above, the relocation of animals into unfamiliar habitat creates new nutritional, social and physical stresses that are extremely difficult to address.

Cost

- Translocation requires a substantial financial as well as logistical commitment of well trained personnel and equipment to ensure human safety (handling animals can be a significant hazard) and humane treatment of deer.
- Costs experienced in translocation projects in the US ranged from \$350-\$800/deer.²

Footnotes:

1. O'Bryan, M.K. and D. R. McCullough. Survival of Black-tailed deer following relocation in California. *Journal of Wildlife Management* 49 (1985): 115-19
2. Hesse, G. 2010. BC Urban Ungulate Conflict Analysis. Report prepared for BC Ministry of Environment, Victoria
3. Hesse, G. 2010. BC Urban Ungulate Conflict Analysis. Report prepared for BC Ministry of Environment, Victoria