East Kootenay Urban Mule Deer Translocation Trial – FAQ's:

1. *Was the capture process stressful to deer?*

Capturing wildlife always induces a certain amount of stress on individual animals. The relatively new sedation drug combination, "BAM-II©", was effective at relaxing the animals, allowing deer to be moved safely from point of capture to the transport stock trailer. No injuries were documented during the capture and translocation process.

2. *Why do you move deer in late winter?*

There are limited opportunities to translocate deer.

- Late winter (prior to mid-March) works well because pregnant does (almost all adult urban does are pregnant) are entering their third trimester, which is considered the safest time to move them. Capturing and moving pregnant does after this date puts both the doe and her fetus at significant risk. In addition, spring green up starts soon after translocation, so animals will have ready access to forage and browse.
- Capturing females and their young fawns in summer is not considered appropriate.
- Moving deer in the fall is not humane as deer have very little time to seek out appropriate winter range habitat features and forage prior to snowfall.

3. *Capture-related deaths have previously been noted as a problem when attempting to translocate deer. Did any deer die during translocation?*

One capture-related mortality occurred early on during the 2016 capture program. The deer regurgitated while sedated, and asphyxiated. Handling methods were modified accordingly and no other capture-related deaths occurred. All deer appeared healthy and in good condition when released from the trailer.

4. *Where were deer released?*

In 2016 four release sites were used: Newgate Transfer Station west of Lake Koocanusa in the Strauss Road area; Dorr Road peninsula near Lake Koocanusa; km 18 on the Lavington Forest Service Road, and km 28 on the Ram Forest Service Road on the south side of Mt Broadwood. In 2017, all deer were released at km 28.5 on the Kootenay River Forest Service Road northeast of Canal Flats, an area known locally as "Gibraltar".

5. *How far did the deer travel after they were released?*

The response of deer following translocation varied widely. Some moved very little, others moved a lot. The home range sizes of collared deer ranged from 30.5 km^2 to 315.3 km^2. The average home range size was 128.4 km^2. The median (the point where half the home range sizes were larger and half the home range sizes were smaller) was similar: 115.6 km^2. Over the same time period, non-urban mule deer home ranges averaged 254.4 km^2. This shows that some non-urban mule deer in the region are moving long distances between winter and summer range while other non-urban mule deer are not migrating at all and maintain very small year-round home ranges.

6. Did deer return to their original town?

Three collared deer are known to have returned to their original municipality. In 2016, two deer found their way back to Invermere under very different circumstances. Both overwintered in Invermere then migrated to back country summer range in the spring of 2017. Both again returned to winter range in Invermere in the fall. A third deer, translocated from Kimberley in 2018, slowly moved south from her release point northeast of Canal Flats. She came upon Bootleg Gap golf course in Marysville (part of Kimberley but not where she originated) in June, 2017 and gave birth to twins here. In July, she moved north and returned to the area of Kimberley (between Blarchmont and Trickle Creek golf course) where she was originated. She is still there.

7. How many deer moved to a community?

Of the 47 deer translocated with a radio collar in 2016 and 2017 combined, 12 deer moved to and stayed in a community. This does not include the two deer who winter in Invermere because they are not in town year-round. Another two deer were located in a town at least once, but moved on within a few days and did not stay or settle in a town. Towns that had deer settle in them included: Baynes Lake (2), Cranbrook (3), Kimberley (1), Wasa (1), Canal Flats (1), Fairmont Hot Springs (1); Eureka, MT (1), Libby, MT (1), Yaak, MT (1).

8. How many deer died?

For deer translocated in 2016, 19 of 29 deer released with radio collars died by August 31, 2017. That represents a period of 16 or 17 months. Deer translocated in 2017 had just under six months of time post-translocation. Five of 18 deer released with radio collars in 2017 died prior to August 31, 2017.

Survivorship is calculated on an annual basis using Kaplan-Meier statistical methods to better allow comparisons among research projects. The annual survivorship of translocated deer for the period from May 1, 2016 through April 30, 2017 was estimated at 51.1%. Using May 1st as a "new year" is common for ungulate studies based females approaching the birth of their fawns. The approximately 50% annual survival for translocated deer in their first year is very similar to translocation projects for urban mule deer in New Mexico and Utah.

9. Won't urban deer be at high risk of predation since they have lost their fear of animals and humans?

The potential for high predation rates was a concern prior to the translocation trial. Urban deer are known to be aggressive to dogs and a similar response to predators such as cougars or wolves would likely result in a very negative outcome for deer. Results showed that urban deer were at no greater risk of predation than non-urban deer over the same time period. Twenty-five percent (25%) of translocated deer fitted with GPS collars were predated, while 28% of collared non-urban deer were predated. The trial found no evidence to suggest translocated urban deer are predator-naïve and therefore at greater risk of predation.

10. Will translocation be used again in the future?

The main complication for translocating deer in the East Kootenay is that some (but, by no means all) deer sought out a town in which to live. Some individuals appear to only be comfortable in an urbanized setting. The government of BC is very clear that translocation of urban deer must not spread habituated deer to communities that do not currently have a problem with urban deer. Any future translocation attempt must have a plan in place to address this likely outcome for *some* translocated deer.