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Science Communications

Deer oh deer

When you think of deer within a city, do you think of the sweet little Bambi out for a walk in the corner park with his mom? Or do you think about a terrifying, aggressive stag with red eyes of fury?

In the lovely municipality of Oak Bay, I am taking part in a study of urban deer. Urban wildlife, and their management, is an interesting topic ecologically speaking. But it's also fascinating in terms of public perception, because many people vocal about urban deer management either see the deer as sweet little Bambis (or is it Bambii), or as menacing beasts.



**Well that's disturbing. Thanks
gifimage.net**

Monitoring sedated deer prior to putting on her pretty new radio collar

In many cities, like Oak Bay, urban deer management assumes that there are too many deer—likely the menacing, scary kind, because who would be upset about a bunch of sweet little Bambis. But in truth, we really don't know how many deer there are within the city. And so, the Urban Wildlife Stewardship Society have spearheaded a project to scientifically assess the status of the urban deer population in Oak Bay. To do this, deer are radio collared and tagged, and a few biological samples are taken (a couple small vials of blood, a tuft of hair, and some fecal pellets). The radio collars will give us a real-time data of where the deer are and what areas they spend their time in. There is also an array of camera traps laid out in Oak Bay, which gives us a record of deer at those specific camera locations. Of course those tags also make visual ID possible in real time as well as on camera trap photos. The blood and fecal samples will allow us to look at genetic relatedness between individuals, parasite load, etc – all important measures of the health of the population and of individuals.

So why all those samples? You may see deer on the front lawn of someone's house as you drive by, but does that mean they are actually using that habitat, or are they merely passing through on their way to their preferred patches—like having to drive through the bad part of town to go to your favourite restaurant? An urban environment is different from a wild habitat (roads, fences, gardens, etc.), so what habitats urban deer actually use may differ

significantly from what they would select in the wild. In the wild, home ranges for deer can be quite large (~140 to 1,770 ha.), but do urban deer move around that much or is the landscape so food-rich for them that they end up having small home range sizes instead? I certainly wouldn't move around much if I were surrounded by all you can eat buffets. 🤔

Also, when one person counts 5 deer in a group, and another person counts 3 deer a block away, does that mean that there are 8 deer? Or was that group of 3 *part of* the larger group of 5 deer? The difference between 5 deer and 8 deer really isn't much, but when you have many observers counting deer, strangely the counts increase based on;

Are the 3 deer seen by Observer 2 part of the 5 deer group seen by Observer 1?

1. the number of observers and
2. the amount of time they spend doing the counts.

You can see this same effect with the annual flower count here in Victoria – every year more flowers are counted, at the same time as the number of observers increases. Are the flowers in Victoria truly increasing year after year, or is it more likely that people are counting the same flowers more than once? And plants don't get up and move like deer do—unless we're talking about Ents... The same issue happens with counting urban wildlife – is there an observer effect artificially inflating the number of deer, or are there *really* that many deer? The difference between 5 deer and 8 deer isn't much, but the difference between 50 deer and 500 deer is quite significant. So this will give us an idea of the real population size of the deer, their use of the habitat, and health of the population. This will allow Oak Bay to make scientifically informed management decisions.



Do you think it's a harmless little rabbit, or a killer? Via giphy & Monty Python

Urban wildlife management is an interesting subject not only in terms the science behind the decision-making, but also in terms of public perception as well. Wildlife management is usually based on scientific recommendations, however in urban settings wildlife management is a very divisive issue. Some people love wildlife and enjoy seeing deer or raccoons in their backyards, while on the other end of the spectrum, some people feel the wildlife are like vermin and should be eradicated (Monty Python teaches us not to

underestimate a cute little bunny). Most people fall somewhere in the middle of these polarized opinions, but the potential costs of living with urban wildlife is what usually makes the opinion sections of local newspapers. More deer within city limits may pose collision risks to drivers and can be costly for avid gardeners to replace browsed on plant specimens. However, deer are being forced to live within our cities because we're expanding our urban footprint and development into their wilderness habitat. Because of the increased observations of deer within cities, it may appear like deer populations are exploding, even though black-tailed deer populations are actually in steep decline overall.

The different polarized public opinions around urban wildlife may be due in part to the perceived risk posed by wildlife. People fear that their pets may be at risk of being attacked and killed by urban coyotes for example. But in Calgary, coyote scat analysis revealed that less than 1% showed any evidence consuming dogs or cats, whereas 80% of scat consisted of small mammals (likely playing a significant role controlling mice and rats). Deer aren't likely to eat a backyard pet (whew!), but there are plenty of people upset if their gardens are damaged, or that feel intimidated when a large buck wanders into their yard. It's hard to quantify just how many vehicular collisions are caused by *deer alone* within city limits, but between 2012-2016 ICBC shows that across Vancouver Island, collisions with all animals (including wildlife and domestic) accounts for 2,000 accidents annually—though thankfully there were no motorist fatalities over that 5 year period. Forty-three deer died in Oak Bay as a result of vehicular collisions in 2014, and at the very least, it is a costly prospect for motorists to repair vehicles. It would be curious to know if these collisions with deer happen significantly more often than with other animals, or if it just happens to be salient to the public because of the media attention these collisions bring. I for one, can't think of a single example where a collisions with a dog made the news.

Fecal pellet collection

One of the collared deer in Oak Bay.

Photo: David Bell

I can't say whether the Oak Bay deer populations are as small or as large as some residents claim. But hopefully this scientific

research will give us all real numbers to inform discussions on management options with Oak Bay home owners and residents. Whether the deer population of Oak Bay are indeed too large, pose any real risks to humans, or are suffering from a misinformation campaign (thank you negativity bias and media effects), I'm looking forward to finding out the real state of black-tailed deer in this one lovely part of greater Victoria.

Though maybe don't trust those neck biting bunnies?



Published by alinacfisher

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[March 6, 2018](#)

Ecology

4 thoughts on “Deer oh deer”

1. Pingback: Deer oh deer — Alina C Fisher – THE BIG BUCK HUNTER 2018

2. **Sarah Boon**

says:

March 8, 2018 at 8:44 pm

My beef with deer is that they're tick vectors. I haven't read this book yet, but hear it's a good read on the topic of urban wildlife.

<https://www.goodreads.com/book/show/13533785-nature-wars>

1. **alinacfisher**

says:

March 9, 2018 at 7:53 am

Yes, good point Sarah! We thought we'd find some while collaring, but so far all clear – though we'd likely have different results in the summer.

And great book suggestion, thanks!

3. Pingback: Deer oh Deer – Urban Wildlife Stewardship Society



UP ↑

