

Elk more concerned by human behavior than their natural predators

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University of Alberta researchers discovered that elk are more frequently and more easily disturbed by human behaviour such as ATV drivers than by their natural predators like bears and wolves.

The U of A researchers, led by biologist Simone Ciuti, spent 12 months in southwestern Alberta. The study involved elk herds, made up of females and their off-spring. The researchers observed the animals' reactions to different rates of human disturbances in the form of vehicle traffic on nearby roads and off-road, all-terrain vehicles.

The elk in the study were found on a variety of land type: public, private and inside Waterton National Park.

The research data show that starting with a rate of just one vehicle passing by a elk herd every two hours, the animals became disturbed and more vigilant. In this state the elk consume less food which can affect their health and possibly their calving success.

The researchers found that the highest level of disturbance happened on public lands where the effect of hunting and ATV use was cumulative.

Contrary to what some people might expect, elk inside Waterton National Park during the busy summer tourist season displayed less disturbance reaction than elk in more remote, unpopulated public land settings where motorized recreational activities were permitted.

Ciuti says this shows the elks' reactions are not shaped by numbers of people but by the type of human activity they're exposed to.

The researchers observed the elk from [long distances](#) so as not to alter their behaviour. Detailed notes were taken documenting the frequency and amount of time the animals spent scanning the horizon for danger rather than [foraging for food](#).

The research was published Nov. 28 in the journal [PLOS ONE](#).

Provided by University of Alberta

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