Vermont House Natural Resources Fish & Wildlife Committee

Re H.357 and the likelihood of lead fragments posing a risk to wildlife when carcasses are left afield.

March 14, 2001

Dear Chairwoman Sheldon, Vice-Chairman Lefebvre, and members of the Committee;

After I testified at your March 12th meeting, Representative Ode had questions about ammunition types which bore on the potential for residual lead in carcasses abandoned in the field. Representative Bates explained that his "go-to" .306 rounds "pass through," presumably, and reasonably, assuming that they therefore pose no contamination risk. Surprisingly, that is not true.

First to Representative Ode's question about ammunition types. I would think this redundant information for many on the committee, but it didn't come up in the meeting so to be clear, the common types of rifle ammunition are:

1. Full metal jacket: usually a lead core with a complete, aerodynamically efficient copper "jacket." This is the only ammunition allowed for military use under the Geneva Convention since it does indeed tend to pass through causing minimal injury. It is designed to wound. The bullet typically does not deform unless it hits bone and therefore creates a narrow wound channel. It is generally considered unsuitable for hunting.
2. Soft point: Similar to the full metal jacket except that the jacket stops near the tip and the lead core forms the tip of the bullet. The lead, being much softer, tends to expand on contact and mushroom. While the bullet may still pass through, it creates a wide wound channel and is much more likely to cause mortal injury. These are illegal for military use but are very suitable for hunting. My rifle for expeditions in bear country is a .45-70 carbine (Marlin Guide Gun). With a soft point 375 grain bullet and a nearly 2000 ft/sec muzzle velocity, it typically inflicts a wound channel about four inches wide. A clean shot to the vital organs will kill almost anything nearly instantly.
3. Hollow point: Self-descriptive. Can be a full metal jacket but with a hollow in the point that causes the bullet to mushroom on impact; again causing a wide wound channel.

The pertinent issue for H.357 is that even when a soft or hollow point hunting round passes through an animal, it leaves a surprisingly amount of lead behind in the form of microscopic fragments. Below are articles on the issue from Outdoor Life, Scientific American, National Park Service, and a scientific paper.

https://www.outdoorlife.com/articles/hunting/whitetail-deer/accessories-gear/2008/12/update-lead-your-meat

https://www.scientificamerican.com/article/wild-game-deer-venison-condors-meat-lead-ammunition-ban/

https://www.nps.gov/pinn/learn/nature/leadinfo.htm

https://www.nps.gov/pinn/learn/nature/upload/Hunt%202009_Lead%20Bullet%20Fragments%20in%20Venison%20from%20Rifle%20Killed%20Deer%20%20Potential%20for%20Human%20Dietary%20Exposure-3.pdf

Thank you, Rob Mullen – West Bolton, Vermont