An Interview with Will Graves, the Author of "WOLVES IN RUSSIA: Anxiety through the Ages"*.

The following interview took place on 24 January 2010.

Q: Will, didn't you work and travel extensively in Asia, Europe, and Africa during your career with the US government?

A: Yes. I was very fortunate to visit and work with a variety of people in places such as Germany, Russia, Kazakhstan, Poland, Siberia, the Karellian Peninsula, Iran, Greece, Spain, Turkey, Ethiopia, Eritrea, and Italy to name a few.

Q: What did you learn about wolves based on your travels and work in these foreign lands?

A: First and foremost, that the management of wolves depends entirely on people and not on any so-called "balance of nature". When management and control of wolf numbers and their distribution is absent, the damage to human life, livestock, domestic animals like dogs, and wildlife increases as wolf numbers and densities increase. Unlike other large predators, wolves are very adaptable, wide-ranging, pack animals that keep expanding their range both as individuals and as packs that expand as food and opportunities present themselves.

I was amazed at how little attention was being paid to both the visible danger of wolves and the hidden potential for the spread of diseases affecting people and other animals when wolves were being Re-introduced into Yellowstone Park in the 1990's. The lack of discussion and preparation for controlling wolves and the absence of any candid description of historical and current wolf experiences and research worldwide struck me as a potential problem of great magnitude.

In addition to the substantiated deaths of many rural people especially in Russia, particularly children and women year around, outbreaks of wolf attacks on humans occur periodically in severe winters or when wolves become habituated to humans when they are not hunted as during World War II in Russia or when their numbers and densities increase with resulting losses of certain prey animals. They are particularly dangerous when they become increasingly bold around humans and human habitations. When wolves come into Russian villages or begin appearing at rural American school bus stops or when, as I was recently told by a Montana rancher, one came into his yard and actually looked in a window of his home, this is a very dangerous situation and almost certainly a prelude to an attack. While trying to chase off such animals is futile, removing such animals should be done immediately. However, this is merely a stopgap because other nearby wolves are likely to soon adopt similar behavior; when wolves exist routinely in such proximity to humans, history and research in Russia show this to be a dangerous situation requiring constant caution and constant control of the wolves.

Also in addition to the observable losses of cattle, sheep, domestic geese and turkeys, pet dogs, herding dogs, hunting dogs, watchdogs, and wildlife like deer, elk, and moose, there is the hidden damage from the stress of constant harassment of chasing and stalking all the surviving animals resulting in reduced physical capacities to survive and reproduce. This resulting stress leads to reduced resistance to disease and reduced weight and stamina that constitutes a significant loss to ranchers, farmers, hunters, rural residents and wildlife populations in my opinion.

Q: Didn't you begin your career as a US technician working in Mexico to detect and eradicate livestock diseases?

A: That's correct. My first job for the government was in the USDA Bureau of Animal Industry program as Chief of a "horseback-only" Inspecting, Vaccinating, and Slaughtering Brigade in a tropical rainforest in Mexico. Our goal was to stamp out the foot-and-mouth disease. My Brigade was based in Cozalapa, Oaxaca, Mexico.

Q: Will, today there is growing concern about wolves in North America and especially about wolves as carriers and vectors of diseases and infections such as tapeworms. What diseases, if any, are wolves susceptible to?

A: I am not a disease expert but I have had a lifelong interest in animal diseases and their pathology, especially the more infectious diseases. In 1978 a Russian Biology Degree candidate noted that wolves carried Brucellosis, Deer Fly Fever, Listerosis, Anthrax, and other diseases. Another Russian scientist noted that the wolf can be infected with more than 50 types of parasites including various tapeworms as you just mentioned. Other Russian specialists have reported that wolves are potential vectors of foot-and-mouth disease. Wolves, just like other Canid animals such as dogs and coyotes are susceptible to and can carry rabies, distemper, and other dangerous infections like Neosporum caninum that causes abortions in grazing animals like livestock and big game animals such as elk, deer, and moose.

Q: Can you describe how some of these diseases are spread and how this affects rural communities where wolves are present?

A: Yes. You mentioned Hydatid diseases or tapeworms earlier. There are quite a few species of tapeworms and several are fairly common in wolves. When infected wolves defecate, minute tapeworm eggs are present and may become airborne when the feces dries so kicking or handling wolf feces is not advisable. The eggs may be deposited on nearby grasses, berries, mushrooms or other plants with water runoff after rains or even heavy dew. These eggs are readily passed onto dogs that commonly have a habit of smelling other canid's feces and often rolling in it. When the dog returns home it may lick the owner or drool in places leaving eggs on objects but most significant is the fact the dog introduces the eggs into the human living space where toddlers and others are exposed to airborne eggs or eggs on surfaces that may enter the lungs or mouth or a cut. Dogs with tapeworms often drag their anus on the floor to relieve the itching that results from the tapeworms that are spreading inside them, thereby further infecting the human living space. In Kazakhstan, where wolves are common, research indicates that rural dogs have tapeworm infection rates several times higher than that of their urban cousins. In many areas of Asia and Eastern Europe it is a long-standing tradition that dogs are unclean and thus are never allowed into buildings of any kind. Like the tradition of not eating pork in some cultures, traditions like no-dogs in homes and ritual washing of hands when entering another's house are speculatively attributed to avoiding diseases historically associated with dogs.

Wolves, like dogs, can carry these parasites without noticeable effect while they range far and wide.

Livestock such as cattle and sheep are susceptible to infection of the tapeworms carried by wolves. One case of a horse infected with tapeworms in Washington State was recently noted. To the best of my knowledge, infected domestic livestock are mildly debilitated, although the chances of the worms entering organs would make the animal more vulnerable to disease and potentially less healthy in an overall sense. Domestic livestock can be vaccinated for tapeworms.

Wild big game animals like deer, elk, moose and mountain sheep are also susceptible to infection with tapeworms. Infected animals, like infected livestock, show little outward signs of the

infection but they are similarly debilitated by various problems like shortness of breath from infected lungs. More problematic however is the likelihood of other kinds of infections in their less healthy state, and in my opinion their becoming more vulnerable to environmental factors like predation, winter stress periods, weather extremes, and periodic food scarcities. Humans that live in or near wolf areas need to be especially knowledgeable and alert. Humans infected by certain tapeworm species carried by wolves risk having cysts and tapeworms incubating in their body for as many as 20 years. The tapeworms may infect the lungs, liver, kidneys, heart, or brain. These last two can be fatal. Diagnosis of emerging symptoms can easily appear to be many other things so that examinations may miss the cause of the problem. This is a thumbnail sketch of wolves and their relationship to Hydatid Diseases. Other diseases and infections such as Neosporum caninum, a disease probably spread by wolves and causing abortions in livestock and big game animals like deer, elk, and moose need more research, rural awareness and public education about the risks and costs of such infections. Brucellosis, Rabies, Distemper, and Anthrax are other diseases known to be carried and spread by wolves. There is also speculation that wolves may carry some diseases or infections on their fur or in their paw pads that may be picked up near dead animals or as they pass through infected areas like pastures and big-game wintering areas. Remember that wolves don't spend their lives in a restricted local area like other wildlife such as most cougars or bears or coyotes or foxes. Individual wolves often roam far and wide and packs have been observed to travel over large and changing areas in the course of a year. Wolves, like dogs, are fairly omnivorous so that when a food source becomes scarce such as disappearing big game or more tightly guarded livestock; wolves are fully capable of moving into new areas and then beginning to feed for example near the edge of a rural community on domestic birds like geese or turkeys or even into towns where wintering big game animals may be seeking safety. Wolves that begin feeding on cattle in pastures just like wolves feeding on big game animals in wintering "yards" will be frequenting pastures or certain wintering yards repeatedly thus compounding the chance of both picking up certain infections and subsequently spreading it to like animals from which the infection originated.

One last thing; there often seems to be many hidden agendas at work whenever we talk about wolves. For instance, when Russians are asked about wolves as vectors for foot-and-mouth disease or anthrax, they are often reluctant to say anything. This might be because of rumors about wolves spreading anthrax from a weaponized anthrax burial site where wolves were able to recently gain access. Anthrax and foot-and-mouth are candidates for biological weaponry research and thus things that can cause trouble for the indiscreet. Similarly in the US discussing claims about wolves "balancing" nature or about their danger to and disruption of rural American life are similarly clothed in fictions and political correctness about everything from lethal controls to federal government liability for damages and harm caused by their wolf protection program.

Q: One last question: what would you recommend that the US and Canada do to avoid the potentially catastrophic effects of a growing and habituating wolf population that threatens rural residents, rural economies, and rural communities today?

A: First, we have to educate the rural and urban publics about the real and hidden effects of wolves. This is a primary function of government in my view. Such education would address candid facts about:

- Lethal wolf damage to livestock and wildlife, and how to avoid it.
 - The increased stress on livestock and wildlife and how to minimize it.
 - Areas away from people where wolves are to be allowed and areas where they are not allowed.

- The need for constant monitoring and for lethal controls by government where wolves threaten humans.
- Diseases and infections carried and spread by wolves and how to avoid them.
- The dangers of wolf habituation and what it portends.
- The toll on rural watchdogs, hunting dogs, herding dogs, work dogs, and pet dogs that results from wolves and how to minimize it.
- The serious total consequences of these things on rural residents and rural lifestyles if not prevented.

Second, wolves need to be kept as completely as possible out of any areas where they have a probability of interacting with humans routinely. A combination of government hunters, public hunters, and legalizing the killing of problem wolves by threatened citizens without the threat of government prosecution are really permanent necessities as long as maintaining wolf populations in acceptable numbers and areas is to be achieved. This will require expensive but continuous monitoring and research to constantly adjust to wolves and their proven capacity to adapt to human changes throughout thousands of years of recorded history.

Will, thank you for sharing these insights based on your travel and experiences. More Americans than you might imagine owe you a debt of gratitude for taking the time to share this valuable information and your suggestions with us. Jim Beers.

Jim Beers

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* Details about Will's book, "WOLVES IN RUSSIA: Anxiety Through The Ages", may be found at his website: WolvesinRussia.com

Note: If you found this interview worthwhile please share it with every rancher, farmer, dog owner, hunter, politician, friend, and relative that you know. If you know of any publication that would use it, please ask them to publish it. This is a serious matter of national importance and all of us need to understand it before we can come together to resolve it. JB

Jim Beers is a retired US Fish & Wildlife Service Wildlife Biologist,

Special Agent, Refuge Manager, Wetlands Biologist, and Congressional Fellow. He was stationed in North Dakota, Minnesota, Nebraska, New York City, and Washington DC. He also served as a US Navy Line Officer in the western Pacific and on Adak, Alaska in the Aleutian Islands. He has worked for the Utah Fish & Game, Minneapolis Police Department, and as a Security Supervisor in Washington, DC. He testified three times before Congress; twice regarding the theft by the US Fish & Wildlife Service of \$45 to 60 Million from State fish and wildlife funds and once in opposition to expanding Federal Invasive Species authority. He resides in Eagan,

Minnesota with his wife of many decades.

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