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Hunting to Scare Grizzlies?

January 13, 2016 | David Mattson



Kill grizzly bears to make them afraid of humans. This idea has gotten a lot of air time in recent years as one of several justifications for removing endangered species act (ESA) protections for Yellowstone's grizzlies, most recently in a <u>January 10th editorial</u> by the Editorial Board of the Bozeman Chronicle. Delisting (another term for removing ESA protections) would clear the way for a sport hunt managed by the states of Wyoming, Montana, and Idaho, which are currently squabbling over a share of the sport kill in anticipation of devolution of authority from the federal government to them.

The idea of instilling fear in grizzlies through a hunt is emotionally charged because there have been several bear-caused human fatalities in the Yellowstone region during the last few years. The media, of course, has duly sensationalized each death. So the idea is to have sport hunters kill grizzlies to teach them to fear people. As a result, there will be fewer bear attacks. People will be safer. To borrow a phrase from Valerius Geist, a proponent of hunting bears, people will have "freedom of the woods." Hmm. Well...

Although some people obviously consider hunting to be a self-evident guarantor of human safety, there is, in fact, little or no empirical support for this proposition. There is essentially no evidence that a sport hunt instils fear in grizzlies. The proposition also defies logic and everything that we otherwise know about grizzly bears. If nothing else, how can a dead bear learn anything? A point that has been made by many others besides me.

Having made my assertion, I should probably elaborate, noting, though, that a thorough review of the evidence (or lack thereof) would probably bore you, the reader, to tears. Which means that I will confine myself to a (relatively) brief and necessarily cursory overview. So put on your seat belt and send me your questions if you want more detail.

Grizzly Bear Fundamentals

The first point to be made is that grizzly bears exist at a baseline characterized by a greater tendency to respond aggressively to perceived threats compared to other bear species. Steve Herrero, a Canadian behavioral ecologist, was the first to speculate that this aggressiveness was rooted in the evolutionary history of grizzlies. Grizzlies (AKA brown bears) evolved in open environments where safety depended

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on standing your ground and intimidating or beating back any threat. (You can find more on the formative evolutionary environments of grizzlies by following this link and this link).

Even so, grizzlies can exhibit a high degree of tolerance for humans and other bears that might otherwise be viewed as threats. You can see this in coastal environments where bears have become highly socialized and tolerant of each other because of frequent interactions with conspecifics concentrated around salmon spawning streams. Or among bears that have interacted enough with benign humans to internalize a less fear-based response—a process known as "habituation."

So, a couple of key points are worth making at this juncture: First, grizzlies seem to be hard-wired genetically to deal with perceived threats aggressively. Second, and perhaps more importantly, grizzlies can become less reactive to people, not as a result of heightened fear, but rather as a result of the opposite. These fundamentals alone call into question the logic of using hunting to increase human safety. Killing grizzlies (and, as I address later, we've done a lot of that even with ESA protections) is unlikely to rewire the genetic underpinnings of their behavior; and less fear rather than more is probably going to make people safer, especially if we continue to reduce the number of circumstances (e.g., garbage around human residences or hunters near freshly-killed elk) that allow people to do things that trigger aggressive responses from even the most tolerant bears. More on that a little later.

Welcome to the Vacuum

Another important point to make up front is that we know virtually nothing about the behavioral and motivational responses of bears to hunting, certainly little that is grounded in research. The closest we come is a study out of Scandinavia showing that hunted brown bears increased their night-time activity, with little obvious relevance to whether humans were thereby safer. A coarse-grained review by Jon Swenson, a Scandinavian bear researcher (and, for a while, a Montana biologist), suggested that hunted European brown bears might be more wary, but that this possible behavioral response was trumped by whether food was available near people. Bears were likely to seek out food regardless of whether they were hunted or not, which goes back to my point immediately above about garbage and huntergenerated carrion.

By contrast, we know quite a bit about the negative and often unintended consequences of selectively hunting adult males of various carnivore species. Insofar as livestock depredation and other conflicts are concerned—including the type that could lead to human injury—we tend to get more rather than fewer. This is because adolescent males tend to gravitate to areas where the dominant resident males have been removed by hunters. And adolescent male bears are notoriously prone to push human boundaries. Moreover, sport hunting tends to disrupt the social order of bear populations, which often results in more cub-killing by males and, with that, unexpected and sometimes problematic population declines.

So, a couple more points: There is little or no direct evidence that bears become warier with hunting, and certainly no evidence that people become safer. On the other hand, conflicts with people can paradoxically increase, along with unanticipated declines in bear populations. So, again, not a compelling case for the benefits of sport hunting.

The Immediate Circumstances of Attacks

At this point I return to Steve Herrero, who has spent essentially his entire professional career looking at the immediate circumstances of bear attacks, with emphasis on behaviors of the involved people and bears. His research shows that most attacks by grizzlies happened because people were moving quietly (or sometimes rapidly) through the woods, or because the bears were lured to the vicinity of people by food. The former set of circumstances led to surprise encounters. Adult females with cubs almost invariably responded aggressively to protect their young. On the food front, when grizzlies spent more time around people the odds mounted of us doing something stupid (or unintentionally risky), or of bears simply getting curious. So, surprise encounters and foods that attract grizzlies are prominent drivers of risk. And, again, foods were typically in the form of garbage or the remains of elk and moose that hunters had recently killed. Only rarely did Steve find that outright predation was a factor, typically as night attacks on people camping in tents.

This comports with what we know of circumstances surrounding the bear attacks that have occurred around Yellowstone. Several people have been injured or even killed because they were moving quietly through the woods (sometimes jogging), surprising a female that then defended her cubs, or a bear that defended a carcass, or, in the case of some hunters, just simply a bear that defended its personal space. But surprise encounters are a central theme. Then there were the few night attacks on people in tents, probably (or, in one instance, almost certainly) by bears that were in the habit of checking out campgrounds for food. So, the food factor. And then there were the odd-balls, such as the botanist killed by an enraged boar grizzly recovering from being trapped and drugged (again, a surprise encounter), or the photographer killed by a frantic female that he had pushed beyond endurance. In this latter case, the stupidity factor.

So, given these concrete circumstances, what can be deduced about prospects for increasing human safety by hunting grizzlies? Well...unless you kill most bears, you are not going to substantially reduce the chance of surprise encounters. Nor, as I noted earlier, are you going to eliminate the hard-wired tendency for grizzlies to defend themselves from a perceived threat when surprised, especially when guarding cubs or food. Hunting also does not deal with the availability of foods near people. And we would be foolish to expect that grizzlies will be less motivated to procure food because we are hunting them. Obtaining food is another hard-wired drive for bears, especially during the late summer and fall when they are putting on fat to get through hibernation. And hunting does not address the stupidity factor.

As a bottom line, when looking at the reasons why people get injured by grizzlies, I am hard-pressed to



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divine how hunting will increase human safety. Unless, perhaps, we kill most of the grizzly bears in and around Yellowstone, as our European ancestors did.

And We've Already Run the Experiment

On top of this, we've already run the experiment and found no evidence that it has worked. Which is to say, we've functionally been hunting Yellowstone's grizzlies for years, complete with gunshots, blood, gory remains, and lots of associated human scent and sign. Think, for example, of all the grizzlies that have been killed by big game hunters during surprise encounters or in conflicts over hunter-killed elk—increasingly. Or by ranchers and other people in defense of life-and-property. Functionally this is probably little different from a sport hunt, except in the heads and on the balance-sheets of wildlife managers. We've essentially been hunting grizzlies in Yellowstone, without any evidence that it has affected human safety one way or another.

And What About Yellowstone Park?

And then there is Yellowstone National Park, where a substantial proportion of the bear attacks and resulting human fatalities have occurred. There will not be a sport hunt in the Park, even with a delisted grizzly bear population. So, even assuming the unlikely--that hunting would cause bears to avoid us because they are more fearful, how will this effect be propagated through over 2 million acres in the core of the ecosystem? From hunted bears on the periphery, which will presumable be killed by humans at a higher rate compared to protected bears living in the core--in Yellowstone Park? In the face of a resulting net movement of bears outward rather than inward? Unlikely.

But We Probably Can Make Bears Fear Us Even More

At this point I've run much of the gauntlet of evidence and found little or no support for the idea that human safety can be enhanced by sport hunting. At least the traditional kind of sport hunting that focuses on killing trophy-worthy adult males, with little overt selection for bears known to be involved in conflicts with humans.

But there is a kind of hunting that probably could have an effect, and to understand this potential we need to look at what we know about relations among bears. More specifically, bears fear other bears, more than they probably fear humans. And there are reasons for this.

For example, there is ample evidence that fear motivates adolescent bears and females with young cubs to exert themselves to avoid other adults, even to the extent of spending more time near people. In fact, we can unintentionally serve as shields of sorts for bears that are seeking protection from aggressors of their own species. There are several reasons for all of this. Adolescents are often chased by solitary adults, and on occasion, probably thrashed to within inches of their lives...sometimes even killed. Likewise, cubs can be killed during encounters with adult grizzlies other than their mother, a phenomenon known as infanticide. All of this entails unpleasant experiences and interactions that happen on a relatively frequent basis, which fosters learning and even generalization of experiences.

So, what does this have to do with how we might hunt Yellowstone's grizzlies, with the objective of engendering fear of humans? It seems pretty obvious. You selectively hunt and kill cubs--but leave the mothers alive. And you trap bears, with an emphasis on adolescents, club them to within inches of their lives, and then let them go. And do this repeatedly and for as many bears as possible.

Having suggested such an approach, I find the prospect disgusting. But, then, I am sure there are some hunters out there that would relish the prospect of killing cubs and torturing trapped bears. The same hunters that have done something similar with wolves and coyotes. But the backlash from the broader public would be predictable, dooming such a hunting strategy to an early demise. Moreover, not unlike abused dogs, abused bears might, in fact, be even readier to attack a human should a surprise encounter happen.

Still, if the issue really is just simply about making grizzlies fear us... Or is the ardent promotion of sport hunting really about something else?

Concluding Thoughts

Take the case of Terry Schramm, a self-styled cowboy from Pennsylvania working for self-styled out-of-state ranchers who own the Walton Ranch in Jackson Hole. Or the legislator-rancher Albert Sommers who raises cows in the Upper Green River of Wyoming thanks to heavy subsidies by environmentalists (in the form of a \$1 million plus conservation easement), by the federal government (in the form of well-below-market-price grazing fees), and by the state of Wyoming (in the form of generous compensation for any cows that he claims are lost to predators). In a recent Wyofile article, both of these icons of the modern west explicitly or implicitly suggested that their fraught lives would be a lot less problematic if there were many fewer grizzlies in a lot fewer places.

The fundamental idea here is to kill grizzlies. The more the better, by whatever means, including sport hunting. My point being that many of those who promote hunting as a means of increasing human safety are probably using the argument simply as cover for getting rid of grizzly bears that they see as an incovenience or an affront to their personal ideologies.

Without having the space here to elaborate, I will leave you with a related thought. Perhaps those promoting the sport hunting of grizzlies are doing so viscerally, out of a place of fear and a derivative need to dominate and subjugate anything that subjectively threatens them. A dark place. A place that gives rise to the logic of owning lots of guns and affirming self through the act of killing—especially beings such as grizzly bears that somehow impart a sense of potency. Or that the habit of killing is so deeply ingrained personally and institutionally that it is impossible for most hunters and wildlife

managers to conceive of wildlife management in any terms other than hunting. Possibly? Certainly not from a place informed by an objective and thorough examination of the evidence.



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Frank Lance Craighead · Bozeman, Montana

Right on David. A good review of the evidence and a modest proposal to solve the problem.

Like · Reply · 1 · Jan 14, 2016 11:23am



Jeff Gailus · Field Instructor at Wildlands Studies

Right on indeed. The maintream rationale for hunting grizzly bears is either deulsional or manipulative. Call it what it is -- blood sport -- and let the public decide whether this is a good use of our sentient "natural resources". I must add for the benefit of the gun-crazy trolls out there that I am not anti-hunting; in fact I hunt many days, sometimes weeks, every year to meat on my table. But you will never catch me slaughtering predators in the name of "wildlife management" to up my macho quotient.

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ALL GRIZZLY READ THE SCIENCE!

Find out everything you ever wanted to know about the biology and ecology of grizzly bears. Authored by world-renowned bear biologist Dr. David Mattson, this site summarizes and synthesizes in beautiful graphic form the science of grizzly bears.



WYOMING WILDLIFE ADVOCATES

Promoting rational, science-based wildlife management that maintains a sustainable balance between species



BEARS FOREVER

Bears Forever brings together elected leaders, scientists, and stewardship personnel from four communities in the heart of the Great Bear Rainforest: the Wuikinuxv Nation in Rivers Inlet, the Heiltsuk Nation in Bella Bella, the Kitasoo/Xai'xais Nation in Klemtu, and the Nuxalk Nation in Bella



GOAL TRIBAL COALITION

GOAL is a coalition of nearly 50 tribes (and counting) who object to the federal and state plans to delist grizzly bears prematurely and allow trophy hunting of this sacred being.

GOAL advocates for the tribes' legal right to meaningful consultation and also for the reconection of tribal peoples to their traditional homelands