

Are guns more effective than pepper spray in an Alaska bear attack?

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Another bunch of Outsiders suffer a mauling in Alaska. I'm not just referring to the grizzly bear [attacking seven teens](#) in late July. I'm talking about the drubbing dished out by Alaskans who believe a gun is the best -- some would say only -- insurance against a bear attack.

A flurry of swats and biting comments were delivered in response to articles in the Anchorage Daily News. Within days the first article racked up 945 often acidic jabs. Several follow-up articles provoked another 569 shots. Most of the authors used pseudonyms, but many comments appeared to be written by Alaskans.

What provoked the electronic attack? Seven teens ranging from 16-18 years old were in their fourth week of a wilderness backpacking course sponsored by the National Outdoor Leadership School. NOLS is a highly respected organization that teaches leadership, teamwork, environmental ethics, first aid, and wilderness skills, including bear safety. The group was on the first day of a "student expedition," which caps the month-long course by permitting the teens to demonstrate what they had learned, without adult supervision. Surprised by a brown bear in the western Talkeetna Mountains, four of the teens sustained injuries. Three members of the group carried a can of bear spray, which none had time to deploy. The teens were not allowed to carry firearms.

Many responses to the newspaper articles either supported or contested the notion that the teens should have carried firearms. Those advocating carrying guns for bear protection provoked an equal and opposite reaction from those who didn't believe guns were a necessary or wise option, at least for a group of teens. I'll call these opposing camps gun "advocates" and "opponents," but only within the context of this specific incident.

Why weren't they armed?

Many advocates focused on the absence of firearms, often expressing astonishment. "Why weren't they armed?" "I would NEVER go out in the wild without serious firepower." "The FIRST RULE of going ANYWHERE in Alaska ... is to carry a RIFLE ..." "There should have been an adult with a loaded gun right behind them. My husband will not even let me go hiking without a gun."

Others were more adamant, suggesting that NOLS and the adult leaders were inexperienced or incompetent. "RULE Number One of Survival when traveling in The Wilderness where grizzlies, black bears, cougars and other such critters roam. CARRY A HIGH POWERED FIREARM WITH YOU, AND KNOW HOW TO USE IT!!" "It is the height of irresponsibility to go into bear country without firearms." "All the experienced hikers I know carry a piece."

Some advocates recommended a specific firearm, caliber, or projectile. "You don't go into the outback of Alaska without a 45 at a minimum." "... if you want to go hiking in bear country you MUST be armed with a .357 mag or greater if you value your life." "... pack a .44 magnum ... that will stop a bear in it's [sic] tracks!" "I have given my daughter and son-in-law a .454 Casull and a .30-06 rifle to carry when they go hiking or berry-picking in the wild. This is Alaska, folks!" "The best bear deterrent is a 12 gauge shotgun with 00 buckshot! This is from hard won fist [sic] hand EXPERIENCE!"

While claiming to have fist-hand experience with guns and bears, many of the advocates proffered bad advice, apparently subscribing to the any-gun-is-better-than-no-gun rule of self-defense. It doesn't work that way. An aggressive grizzly bear, or one defending its cub or a carcass, is not necessarily deterred by a little pain. The bites and blows traded by two bears can be far more debilitating than a lead pellet embedded in muscle tissue or ricocheted off their skull. And wounded bears, even fatally wounded bears, have attacked and killed the shooter or others who've stumbled into their path.

All guns are not equal

Two employees of the U. S. Forest Service, William Meehan and John Thilenius, attempted to answer the question "Which gun is the best bear protection?" in a [report](#) published in 1983. They tested rifles, handguns, and a [12-gauge shotgun](#) at the point-blank range of 15 yards, measuring the striking energy, penetration, retained bullet weight, and bullet expansion of various combinations of barrel lengths, cartridges, and bullet weights or types.

Some of their results were surprising. Of the handguns tested, only the [.44 magnum](#) was powerful enough to be considered minimally effective, and it ranked well below most of the rifles and the shotgun with slugs. The authors deemed the .44 magnum a backup weapon, useful primarily in that it can be strapped to your body whereas a rifle or shotgun may be out of reach when the attack occurs. The [.357 magnum](#) and [.45](#) were not adequate. The authors did not test the [.454 Casull](#) or any [.50 caliber](#) handguns, recommended by some advocates.

Of the rifles tested, only the larger calibers and more powerful cartridges were suitable for bear protection. The highest ranked rifle was the [.458 Winchester Magnum](#), using 510-grain bullets. A [.375 H & H Magnum](#) and [.338 Winchester Magnum](#) also scored high using a variety of ammunition types. The authors considered a [.30-06](#) loaded with 220-grain bullets to be minimally acceptable for

bear protection. A [.30-30](#) was not tested, but it has considerably less striking energy and bullet weight than the [.30-06](#).

This didn't stop one advocate from bragging on his [.30-30](#): "I was a teen at the time [hiking on the North Slope] and carried a [30-30](#) with me (rifle that packs a punch). Anyone hiking in bear country needs to have a firearm – teen or not." They also added, "If you don't want to kill a bear, start with bird-shot and finish off with buckshot if that doesn't work ... [30-30](#) was great, but your best bet is a shot to the face with birdshot." No bona-fide expert would suggest such a thing. If your best defense is blinding the bear, why not use bear spray, which isn't going to maim the bear or prove fatal long after the encounter?

The 12-gauge shotgun was deemed suitable for bear protection, but only with slugs. [Buckshot](#) had little penetration beyond 15 feet. Bear spray has twice the effective range.

Most of the advice offered by gun advocates would have resulted in a wounded bear, at best, and possibly more injured teens. It's the nature of people who are passionate about such things to argue over the details. You may not agree with every finding of the analysis, or you may know another bear-stopping combination of caliber and cartridge. People have claimed to have killed a grizzly bear with a [.22 rifle](#). But it's not recommended.

Alaskans think they know bears

As little as many advocates seemed to know about guns, they knew less about bears. For example, "It is a long known practice that once a bear gets a taste for humans, or even attacks them, their fear of humans is completely lost." There's no evidence that supports this generalization. Many advocates assumed the bear intended to eat the teens, even though this attack, like most bear attacks, was in all likelihood an act of defense. Some gun opponents were equally ignorant. For

example, "From what I've been told, the only options you have when a bear is charging is to shoot it in the eye, or the mouth."

Most of the pro-gun arguments seemed to be raised by Alaskans. "Bear spray might be o.k. to use down there but this is a different part of the country with bigger and more fearless bears than you are used to." "Anyone that lives, works or visits Alaska knows you DO NOT go in the woods without a firearm." "Here in Alaska we carry guns. Bears are a big reason why we don't go out in bear country without them." "BS! there should have been someone from ALASKA with a GUN with these kids. It's one thing to have kids that age who have grown up in AK and are aware of the bear dangers..." "I know eighth graders who can handle a large caliber revolver and have taken one in the back-country. They are still alive and have not been dismembered by bears." There were more, but you get the picture.

The most disturbing aspect of these chest-thumping denunciations is not the belief that teens should be allowed, or forced, to carry guns on backcountry hikes in Alaska. It is the assumption or boast that Alaskans know how to prepare for a bear attack and that, in our expert opinion, the best defense is a gun.

Before I go any further let me assure you: I like guns. In junior high school I achieved the National Rifle Association's Marksman First Class with a .22 rifle. I earned the Boy Scout's Rifle and Shotgun merit badge. I qualified for the Expert Rifleman Badge in the U.S. Marine Corps. I have a hunter safety certificate, and I've attended and conducted numerous bear-safety courses and firearm qualifications. I hunt. I own guns. Here's what I know about firearms. In the hands of a properly trained person, with experience in handling and shooting that firearm, a gun is a valuable tool.

Here's what else I know. Firearms can also be misused, mishandled, and poorly aimed. Many people don't have the training and experience to handle a firearm in any situation, much less a stressful, every-second-counts melee like a bear attack, without injuring themselves or the people around them.

Guns fail too

Do Alaskans know more about guns and bear defense than others? Because Alaska still has lots of bears, and many Alaskans hike, camp, fish, and hunt, we hear more than most people about carrying guns for bear protection. Yeah, we hear advice like "shoot it in the face with birdshot." Alaskans aren't necessarily experts. In my experience, most Alaskans know little to nothing of guns or bears.

In "More Alaska Bear Tales," Larry Kaniut compiled information on 172 maulings in Alaska between the late 1890s and 1988. If you can believe the stories people tell and the reporters who documented the attacks, Kaniut's list can shed some light on the use of firearms against charging bears.

Do Alaskans get mauled less often than nonresidents? Not in Alaska. Most of the people on Kaniut's list were Alaskans, and most of the nonresidents were on hunts guided by Alaskans.

Does carrying a gun prevent or curtail attacks? The foremost authority on bear attacks, Dr. Stephen Herrero, believes that, while firearms may prove useful in some encounters, many people are safer without a gun. In "Bear Attacks: Their Causes and Avoidance," Herrero compiled details on hundreds of incidents in North America that resulted in human death or injury. He believes firearms can embolden users, increasing the likelihood of provoking a bear attack. Firearms often wound bears, which may trigger or increase aggressive behavior. Ironically, many more people are injured or killed annually by accidentally shooting themselves or companions than are mauled by bears.

Does carrying a gun prevent serious or fatal injuries by bears? Not according to Kaniut's list. In 86 (70 percent) of the 122 maulings where enough information is provided, either the victim or someone else in the party had a firearm. Of course, some bears are shot before they can do any damage. These encounters aren't included in Kaniut's list and aren't necessarily reported. A firearm can be useful,

as Herrero attests, but obviously firearms don't prevent maulings. Many of the victims in Kaniut's list were injured before a firearm could be discharged, or the shots missed the bear. In 40 (36 percent) of 110 maulings someone in the party had wounded the bear before or during the attack.

How about Herrero's contention that a firearm may increase the likelihood or severity of a bear attack? Based on Kaniut's list, in 30 percent of the 40 attacks where the bear was wounded before or during the attack, the bear killed at least one person. In 24 percent of the 86 attacks where someone in the party had a firearm, a person died. That seems like a high fatality rate to me.

Is a firearm better protection than bear spray? Bear spray -- a concoction of propellants and capsaicin (from red pepper) that burns the eyes and mucous membranes -- is effective up to about 30-35 feet. Dr. Tom Smith, Herrero and others assessed the [effectiveness of bear spray](#) in 72 incidents in Alaska where someone used it in defense. Bear spray was effective in 92 percent of the 50 cases involving grizzlies and 90 percent of the 20 cases involving black bears. No one who used bear spray was killed. In the nine instances where a grizzly charged a person, the bear broke off the encounter after it was sprayed, and only one person was injured. The injury was relatively minor, deep scratches requiring stitches. Eventually, someone who uses bear spray will be severely injured or killed by the bear. But it seems clear that bear spray promises to be at least as effective at preventing maulings as a firearm.

Should teens be armed?

Anecdotal evidence suggests not. For example, in 1998 an 18-year-old boy, accompanied by four girls, shot a 17-year-old friend after he snuck up close in the brush to frighten them. The 18-year-old, armed with a .44 magnum handgun, [thought they were being attacked](#) by a bear. Most teens aren't experienced enough, or mature enough, to safely handle firearms. Or, if they are, their friends aren't.

Guns aren't only dangerous on the rare occasions when a bear attacks, they are potentially lethal whenever they aren't locked up. Alaska has one of the [highest death rates from firearms](#) of all the states, according to the Centers for Disease Control and Prevention. [Sixty percent](#) of Alaskans report guns in or around the home. If you don't have an unsecured firearm in your home, your kid's friends do. Most kids who are injured or cause injury to other kids had easy access to a firearm. Unintentional shooting is the [eighth highest cause](#) of child and adolescent fatalities in Alaska, and firearms contribute to the number 1 and 3 ranking of suicide and homicide. From 1994-1998 167 children and adolescents were injured or killed by firearms in Alaska; 112 of these were fatal. Of the fatalities -- 16 by unintentional shooting, 62 suicides, and 33 homicides -- 90 (80 percent) were 15-19 years old. I doubt the figures were much different in more recent years. And you thought bears were dangerous.

Responsible adults are trying to do something about Alaskan teens' unfamiliarity with firearms. According to Jerry Soukup, the Alaska Department of Fish and Game certifies about 2,000 students in basic firearms safety each year, and most are teens. All three middle schools in Juneau and a few public schools in Anchorage, on the Kenai Peninsula, and in the Matanuska-Susitna Borough offer basic firearm safety training.

Basic firearm safety isn't something you can absorb in a few hours. [Familiarity](#) and [proficiency](#) take much longer. That's why it's not a good idea for NOLS to shoehorn guns into their curriculum and expect every teen taking a backpacking course to become proficient.

Teens shouldn't handle firearms without training and supervision any more than they should be allowed to drive motor vehicles without training and supervision. If a teen is mature enough, and well trained enough, to safely handle a firearm in a stressful situation, a gun might increase his or her chances of surviving a bear attack. But don't try to tell me Alaskan teens, or any Alaskans, are better equipped to survive a bear attack because we are armed to the teeth.

Because when a bear attacks and you have two seconds to react ... and it's raining ... or dark ... and you can't see 10 feet into the brush ... and your shotgun is leaning against a tree ... or your rifle's scope makes it difficult to acquire the bear ... or you **short-stroke** your 12-gauge and jam it ... or you empty your .357 magnum and the bear keeps coming ... or you've never shot a gun before ... and the ground is slippery ... and your partner steps between you and the bear ... or the bear straddles you, pinning your long gun in the present-arms position ... you might be wishing you had a can of bear spray.

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