

Board of Review Recommendations

Recommendations related to mountain bike safety in bear habitat based on the fatality of Mr. Brad Treat on June 29, 2016.

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The unfortunate death of Mr. Brad Treat from a grizzly bear attack that was precipitated by a high-speed mountain bike collision between Mr. Treat and a bear necessitates increased attention to the dangers associated with mountain biking in black bear and grizzly bear habitat. There is a long record of human-bear conflicts associated with mountain biking in bear habitat³ including the serious injuries and deaths suffered by bike riders. Both grizzly bears and black bears have been involved in these conflicts with mountain bikers. Previous authors have noted the risk associated with mountain bikes in bear habitat:

“Safety issues related to grizzly bear attacks on trail users in Banff National Park prompted Herrero and Herrero (2000) to study the Moraine Lake Highline Trail. Park staff noted that hikers were far more numerous than mountain bikers on the trail, but that the number of encounters between bikers and bears was disproportionately high. For example, three of the four human-grizzly bear encounters that occurred along the trail during 1997-98 involved mountain bikers. Previous research had shown that grizzly bears are more likely to attack when they first become aware of a human presence at distances of less than 50 meters. Herrero and Herrero (2000) concluded that mountain bikers travel faster, more quietly, and with closer attention to the tread than hikers, all attributes that limit place on a fast section of trail that went through high-quality bear habitat

¹ These recommendations rely heavily on the input of Brian Sommers, a criminal investigator and Wildlife Human Attack Response Team (WHART) leader for Montana Fish, Wildlife, and Parks, who was the lead investigator on the this incident.

² Chair of the Board of Review.

³ See Appendix A.

with abundant berries. To reduce such incidents, they recommended reaction time for bears and bikers, and increases the likelihood of sub-fifty meter encounters. In addition, most of the bear-cyclist encounters took education, seasonal closures of trails to bikes and/or hikers, construction of alternate trails, and regulations requiring a minimum group size for bikers.” From: Herrero, J., and S. Herrero (2000) Management Options for the Moraine Lake Highline Trail: Grizzly Bears and Cyclists. Unpublished Report for Parks Canada.

The Board of Review (BOR) on the death of Mr. Lance Crosby from a bear attack in 2015 while **hiking** in Yellowstone National Park made the following recommendations to again restate agency advice on how to reduce the risk of bear attack while **hiking** in bear habitat:

- 1) **Be Vigilant** – Being vigilant for bears and bear sign (tracks, scat, feeding sites) can reduce the chances of stumbling onto a bear at a close distance, thereby reducing the risk of bear attack. Be especially vigilant if hiking off-trail. Bears may be more likely to respond aggressively in off-trail areas where they don't expect to encounter people. However, bears frequently use maintained trails and encounters may occur anywhere. The BOR encourages hikers to remain vigilant while hiking in all bear country.
- 2) **Carry Bear Spray** – Bear spray has proven to be effective at stopping aggressive bear behavior during surprise encounters when the person involved has time to deploy it. The public should be made aware of this fact and encouraged to carry bear spray and to be familiar with how to rapidly deploy it.
- 3) **Make Noise** – Making noise while hiking is an effective method of forewarning bears of your presence, thereby reducing the chances of surprise encounters and related attacks.
- 4) **Don't Run** – Running during an encounter can trigger a chase response in a bear. In addition, jogging in bear country increases the odds of surprise encounters at close distances and surprised bears are more likely to be aggressive.
- 5) **Do not Hike Alone** – Hiking in group sizes of 3 or more people or traveling by horseback is known to reduce the risks of bear attack. Larger groups are more intimidating to bears and more likely to have at least one member making noise or being vigilant, thereby reducing the risk of bear attack. Horses are more likely to smell, hear, or see a bear before a person does, reducing the likelihood of surprise encounters. Horses are also more intimidating to bears and if needed, unlike humans, are capable of outrunning and outmaneuvering bears.

This Board of Review recognizes that there is a need for enhanced messaging aimed at **mountain bikers** in bear habitat. Current safety messaging at trailheads and in the media is usually aimed at hikers. However mountain biking is in many ways more likely to result in injury and or death from bear attacks to people who participate in this activity. In addition, there are increasing numbers

of mountain bikers using bear habitat and pressure to increase mountain bike access to areas where black bear and grizzly bear encounters are very likely.

In an effort to enhance messaging about ways to increase safety for mountain bikers, this Board of Review makes the following recommendations:

- A. We recommend that mountain bike-specific signs be placed at maintained system trailheads on public lands in bear habitat. These signs should carry the specific messages below aimed directly at mountain bikers, and would provide information in addition to that deemed necessary for other kinds of trail users. Since it is not possible to post and maintain mountain bike-specific signs on every trail that might be used by mountain bikers, we also recommend the development of brochures and posters with these same messages about mountain biking in bear habitat. These brochures and posters should be distributed to all bike shops, sporting good stores that sell bikes, and bike rental shops, and should also be used in outreach presentations to recreational groups and clubs. This information should also be available on websites targeted to mountain biking groups.
- B. Suggested messages for signs and educational materials aimed at mountain bikers:
 1. **Be Vigilant** – Be alert for bears and bear sign (tracks, scat, feeding sites) where you ride. Do not ride in areas where you see fresh bear sign like scats and tracks. Avoid riding in areas where there are rich bear foods like huckleberries in late summer when bears are very likely to be present. Bears frequently use maintained trails and encounters may occur anywhere at any time of the day. The BOR encourages mountain bikers to remain vigilant while biking anywhere in bear country.
 2. **Slow Down** - Encounters with bears are much more likely to occur when riding at high speed. Surprised bears are more likely to be defensive and to cause injury to bike riders. High-speed encounters can cause enhanced aggression in bears and may cause bears to chase you and possibly knock you off your bike. Riding at high speed can be especially dangerous where there is little sight distance ahead or to the sides of the trail where you can surprise a bear at close range. Areas with curves in the trail or thick vegetation require slow speeds and making noise as you ride to alert bears to your presence.
 3. **Carry Bear Spray** – Bear spray is effective at stopping aggressive bear behavior during surprise encounters when the person involved has time to deploy it. Carry bear spray on your person, not in your pack, and in a place you can reach it in a few seconds. Should you encounter a bear, bear spray is an essential deterrent to enhance your safety. Also, should there be an incident with a

- bear, riding partners can aid injured riders by deterring bears with spray and this may save their life.
4. **Make Noise** – Mountain biking is a quiet and fast activity that may cause you to get much too close to a bear before either you or the bear knows it, resulting in a surprise encounter and a defensive attack by a surprised bear. Surprised bears are more likely to be agitated, dangerous, and aggressive. Making noise while riding is an effective method of forewarning bears of your presence, thereby reducing the chances of surprise encounters and related attacks. You can make noise by riding with bells, other noisemakers, and/or shouting when in or approaching areas of thick cover or at blind corners in the trail. If you can't make noise and you are in bear habitat with limited sight distance along the trail, slow down and be alert.
 5. **Do Not Ride Alone** – Single riders are much more likely to surprise a bear and be injured or killed if there is an attack. Riding in groups of 3 or more people can reduce the risks of bear attack. Larger groups are more likely to make more noise and are intimidating to bears should a bear be encountered. Also, if there is an incident with a surprised bear and there is injury to a rider, the other riders can help by deterring the bear with bear spray, going for help, and offering first aid to the victim until help arrives.
 6. **Never Ride at Night or at Dusk or Dawn** – Riding at night or during early morning or before dark will greatly increase your risk of encountering and surprising a bear. Bears tend to be more active at these times. Your ability to be vigilant and aware of your surroundings is greatly reduced when you cannot see bear sign or bears in low light or in darkness.
 7. **Don't think: "It won't happen to me"**. That kind of attitude is what can get you into serious trouble whether you are mountain biking or doing any other potentially dangerous activity. Be prepared and be safe. That way you can enjoy your activity and you and the bears will be safe.
 8. **Remember the bears live there and you are just a visitor.** Taking these precautions will help keep you safer and reduce the stress and disturbance to bears that live in these places where you choose to occasionally recreate.

In an effort to reduce trail conflicts between mountain bikers and bears, this Board of Review makes the following trail recommendations⁴:

- A. Before new trails are opened to mountain biking in bear habitat, particularly grizzly habitat, there should be careful evaluation of the

⁴ These considerations for new trail placement and access restrictions on existing trails to reduce impacts to wildlife are supported by the International Mountain Bicycling Association (IMBA) (see Marion, J. and J. Wimpey. 2007. Environmental impacts of mountain biking: science review and best practices; in *Managing Mountain Biking: IMBA's Guide to Providing Great Riding*, available at <http://www.imba.com/>).

safety and reasonableness of enhancing mountain bike access in these areas where bear density is high. These evaluations should include:

1. Evaluation of the sight distance along trails due to vegetation density (i.e. does the trail traverse riparian zones with limited sight distance and high ambient noise levels from running water in streams), or dense vegetation due to early successional stage vegetation, or extremely curved trail segments (tortuosity) where surprise encounters are likely.
2. Evaluation of the productivity of bear foods along trail routes (i.e. does the trail traverse productive huckleberry fields or avalanche chutes?).
3. Evaluation of the application of seasonal closures of trails for mountain bikes during key seasons and the management capacity of agencies to maintain and manage such seasonal closures should the trail be opened for mountain bike use.

Appendix A

Some examples of mountain biker incidents with bears:

<http://www.cbc.ca/news/canada/calgary/aggressive-bear-killed-calgary-cyclist-near-b-c-resort-1.670727>

<http://www.cbc.ca/news/canada/edmonton/wildlife-conflict-specialist-describes-jasper-grizzly-attack-1.2654545> and <http://www.thejasperlocal.com/exclusive-biker-describes-grizzly-attack.html>

<http://news.nationalpost.com/news/canada/bear-spray-helped-cyclist-get-to-safety-in-the-second-bear-attack-in-southern-alberta-in-two-days>

<http://www.deseretnews.com/article/595089542/Bicyclist-escapes-grizzly-attack-without-scratch.html>

<http://www.theglobeandmail.com/news/national/cyclist-attacked-by-black-bear-near-banff/article20411501/>

Copy and paste into your browser:

<https://www.adn.com/alaska-news/article/bear-attacks-bicyclist-anchorage-trail/2010/06/15/>

<https://www.adn.com/alaska-news/article/cyclists-cool-thinking-saved-bear-attack-victim/2008/07/01/>