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Montana Grizzly Bear Advisory Council  
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**Re: Hunting Grizzly Bears in Montana**

Dear Montana Grizzly Bear Advisory Council:

Thank you for the time, work, and thought that each of you have dedicated to discussing the future of grizzly bear management in Montana—particularly over the past few weeks under such trying circumstances. On behalf of the Natural Resources Defense Council (“NRDC”) and our thousands of members in Montana, we appreciate the opportunity to submit these comments regarding one aspect of grizzly management under consideration: hunting. For the reasons explained below, grizzly bear hunting is unwarranted and unsafe, because it would be unlikely to reduce human-grizzly conflicts and could even increase risk to human safety. Therefore, we urge you to recommend that FWP not hold hunting seasons for grizzly bears in the future, and that it instead focus on continuing its important efforts to provide information and resources to the Montana public about how to live, work, and recreate safely in grizzly bear country.

**I. There is Little Evidence that Hunting Grizzlies Would Reduce Conflicts with or Attacks on People.**

To provide background information for the Advisory Council’s discussion about this issue, Montana Fish, Wildlife & Parks (“FWP”) prepared a briefing paper (“Brief”) on the history of, and laws pertaining to, grizzly bear hunting in Montana.<sup>1</sup> In its Brief, FWP suggested that some people might support grizzly bear hunting, because “hunting may help bears become warier of humans,” and because hunting could “potentially address conflict bears.”<sup>2</sup> Similarly, the Brief explained that Montana’s current Grizzly Bear Policy, found within the Administrative Rules of Montana, identifies sport hunting as the “most desirable method” of “minimizing depredations against private property” and “minimizing grizzly bear attacks on humans.”<sup>3</sup>

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<sup>1</sup> See FWP, Support Team Brief on the history of grizzly bear hunting in Montana and review of existing laws, policies, rules, and plans, version 5 (March 30, 2020) (“Brief”).

<sup>2</sup> *Id.* at p. 1.

<sup>3</sup> *Id.* at p. 2; see also A.R.M. § 12.9.1401(1)(c)(ii).

Thus, two of the primary rationales for hunting grizzlies in Montana are that it could minimize conflicts, and that it could minimize attacks on humans. However, there is little evidence to support these assumptions. Montana’s Grizzly Bear Policy was adopted in 1972; since then, numerous studies have repeatedly demonstrated that its rationales are incorrect.

## **II. Hunting Would Be Unlikely to Reduce Conflicts.**

It is unlikely that hunting grizzly bears would reduce human-grizzly bear conflicts. Researchers from around the world have studied the effects of hunting on a variety of bear species and consistently found that hunting does not reduce human-bear conflicts. For example, studies of grizzly bears in British Columbia, brown bears in Norway, American black bears in Wisconsin and Ontario, and Asiatic black bears in Japan all found no correlation between the number of bears killed by hunters and the number of human-bear conflicts during that year or subsequent years (Artelle et al. 2016, Sagør et al. 1997, Treves et al. 2010, Obbard et al. 2014, Huygens et al. 2004, respectively). In other words, across all of these countries and continents, a remarkably consistent theme emerged: hunting bears did not reduce conflicts.

The studies’ authors suggested several potential reasons for this finding. Artelle et al. explained that bears killed by hunters tended to be older and live farther from human habitation than those involved in conflicts.<sup>4</sup> Thus, bears targeted by hunters were usually not the same bears involved in run-ins with people. Sagør et al. explained that it can be difficult to distinguish conflict bears from non-conflict bears.<sup>5</sup> Because non-conflict bears were probably also being shot during removal efforts, efforts to kill conflict bears were not helping to reduce sheep losses.

Treves et al. and Huygens et al. suggested that, following hunting seasons, new bears were just filling vacancies left by killed bears, and then triggering new conflicts.<sup>6</sup> As a result, conflicts following hunting seasons did not decrease. Treves et al. also pointed out that females with cubs, which could not be killed by hunters (which would also be the case during a grizzly hunt in Montana), would have been left alive to potentially repeat any pre-hunt nuisance behavior.<sup>7</sup> Lastly, Obbard et al. suggested that, rather than actually reducing conflicts, allowing the hunting of bears may just reduce complaints.<sup>8</sup> They speculated that *actually* reducing conflicts would require high enough levels of killing to drive bear populations to very low densities—a management approach that may threaten the very viability of the population.<sup>9</sup>

Obbard et al.’s point was recently reiterated by former U.S. Fish and Wildlife Service (“FWS”) grizzly bear recovery coordinator Chris Serhveen. Serhveen explained why a conventional hunting season would not reduce conflicts:

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<sup>4</sup> See Artelle et al. 2016, p. 5.

<sup>5</sup> See Sagør et al. 1997, p. 94.

<sup>6</sup> See Treves et al. 2010, p. 39; Huygens et al. 2004, p. 200.

<sup>7</sup> See Treves et al. 2010, p. 39.

<sup>8</sup> See Obbard et al. 2014, p. 106.

<sup>9</sup> Id.

The only way you reduce bear conflicts through hunting is to reduce their numbers significantly in specific areas where depredations occur. A normal hunting season won't reduce conflicts. You're taking out just a few bears across large areas, and a lot of the bears you remove probably weren't causing problems. Hunting is too random to ensure the "right" bears get shot. The best way to solve depredation is to capture, recapture, and remove individual problem bears.<sup>10</sup>

While the studies above found no correlation between hunting and human-bear conflicts, many of them did find a strong correlation between the availability of natural foods and levels of conflict. For example, Artelle et al. found that during years with lower salmon abundance in Alaska, there were corresponding increases in human-grizzly bear conflicts.<sup>11</sup> Likewise, Obbard et al. found that years with lower abundance of natural foods like berries and nuts in Ontario were associated with increased levels of human-black bear conflicts.<sup>12</sup> Treves et al. discussed several other studies that showed that in years of poor wild food availability, bears were more likely to engage in nuisance behavior.<sup>13</sup> Similarly, Huygens et al. suggested that levels of conflict between humans and black bears in Japan were a consequence of factors other than hunting, including natural food availability.<sup>14</sup>

These findings challenge the assumption in FWP's Brief and in Montana's outdated Grizzly Bear Policy that sport hunting could be a useful tool to reduce human-bear conflicts. As Obbard et al. emphasized, "Although it may be intuitive to assume that harvesting more bears should reduce human-bear conflicts, empirical support for this assumption is lacking despite considerable research."<sup>15</sup>

Indeed, later in its Brief, FWP acknowledged many of the points made by the researchers, stating that "in the context of Montana grizzly bears, recreational hunting would probably be limited to such a small number of bears that behavioral effects at the population level would be unlikely;" "nuisance females would be largely unaffected by a recreational hunt, potentially allowing their young to learn undesirable habits;" and that, "although a hunt specifically targeting nuisance bears is theoretically possible, it would be logistically difficult and raise ethical issues regarding fair chase."<sup>16</sup>

FWP's Brief also quoted a position paper published in 2017 by the International Association for Bear Research and Management that said, in part, "If the primary management goal is to reduce human-bear conflict, the crucial, and, arguably, only efficient and long-term way to do so is

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<sup>10</sup> See <https://www.themeater.com/conservation/wildlife-management/would-hunting-grizzlies-reduce-conflict-with-humans>.

<sup>11</sup> See Artelle et al. 2016, p. 5.

<sup>12</sup> See Obbard et al. 2015, p. 105.

<sup>13</sup> See Treves et al. 2010, p. 38.

<sup>14</sup> See Huygens et al. 2004, p. 200.

<sup>15</sup> Obbard et al. 2015, p. 106.

<sup>16</sup> Brief, p. 5.

through education, outreach, and implementation of practices and regulatory policies that remove bear attractants.”<sup>17</sup>

Likewise, as a result of their findings, many of the authors of the studies described above recommended nonlethal approaches to reducing conflicts rather than relying on hunting. Their list of recommendations to reduce conflicts included: increasing public education; more closely managing livestock rather than allowing them to range untended; changing crop rotations to crops that are not attractive to bears in high-risk areas; using electric fences; applying aversive conditioning techniques; promoting, protecting, or restoring natural food production (e.g., through habitat protection); and focusing on understanding the underlying ecology of conflicts to better target mitigation efforts when and where conflicts are most likely to occur.<sup>18</sup>

### **III. Hunting Would Be Unlikely to Reduce Attacks on Humans.**

Hunting grizzly bears would also be unlikely to reduce attacks on humans. As a threshold matter, while it is important to prevent any bear attack on a human, it is also important to recognize that these attacks are already extremely rare. For example, between 2000 and 2015 in Montana, there were 25 grizzly bear attacks that resulted in physical injury to humans, and two of those resulted in a human fatality (Bombieri et al. 2019). A recent article put those numbers into perspective:

Statistically, grizzlies really aren’t all that dangerous. Yellowstone National Park’s website puts it bluntly: the odds of getting hurt by a grizzly in the park are about one in 2.7 million. Combined, grizzly and black bears have killed fewer than three people per year in the U.S. and Canada since 2010. By contrast, in the U.S. alone, 94 people died kayaking in 2017 and 44 died skiing during the 2016-17 season.<sup>19</sup>

Also, 95% of all brown bear attacks in the world during that same time period (2000 to 2015) were the result of a bear reacting defensively to an encounter with humans.<sup>20</sup> In other words, it’s extremely rare for a bear to behave in a predatory way or to seek out an encounter with a human.

Thus, bear attacks are rare. In addition, there is little evidence that sport hunting would reduce this already rare event even further. A recent, comprehensive review of brown bear attacks worldwide found no significant difference in the number of attacks in countries where brown bear hunting is legal and those where it is not (Bombieri et al. 2019). This suggests that hunting brown bears does not result in fewer attacks on humans. Importantly, the study also made clear that hunting *itself* can result in attacks: of the 664 attacks that were investigated, nearly a quarter

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<sup>17</sup> Id.

<sup>18</sup> See Artelle et al. 2016, p. 5; Sagør et al. 1997, pp. 94-95; Obbard et al. 2014, p. 106, Huygens et al. 2004, p. 201.

<sup>19</sup> See <https://www.outsideonline.com/2402436/grizzly-bears-habitat-humans> (Oct. 3, 2019).

<sup>20</sup> See Bombieri et al. 2019, p. 4.

(123) occurred while the humans were hunting, and of those, 27 occurred while humans were hunting *brown bears*.<sup>21</sup>

Further, nearly half of the attacks (47%) were the result of a defensive reaction of a female with cubs.<sup>22</sup> As mentioned above, under FWP's draft grizzly bear hunting regulations, female bears with cubs would not be hunted.<sup>23</sup> Thus, even if hunting were an effective means of reducing grizzly bear attacks, it would not affect half of the bears involved in attacks each year.

Many grizzly bear biologists in the U.S. agree that hunting grizzlies will not reduce attacks on people. According to FWP grizzly bear management specialist Kim Annis, "If the argument is that hunting bears will teach them to be afraid of humans, I don't understand how that would play out. . . . Bears are solitary animals. If someone kills one, it's dead. It would have to stay alive to actually learn something."<sup>24</sup> Annis pointed out that "people have been hunting black bears forever and they still come around people. Alaska has allowed hunting of brown bear . . . and there are still conflicts between bears and humans there."<sup>25</sup> She continued, "I don't see where there is any evidence that bears learn to fear humans because of hunting. . . . If people want to be able to hunt grizzly bears as a trophy, that's what they should say."<sup>26</sup>

Similarly, Confederated Salish and Kootenai Tribes grizzly bear specialist Stacy Courville has said, "Dead bears don't learn anything. . . . Unless there is a bear right there standing next to the one that got shot, I'm not sure how bears would learn anything about being hunted."<sup>27</sup>

Former U.S. Geological Survey grizzly bear biologist David Mattson has also pointed out that, in essence, we've already been hunting grizzlies in the lower 48 states for years, with no indication that it has affected bears' wariness:

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 . . . . We've essentially been hunting grizzlies in [the] Yellowstone [area], without any evidence that it has affected human safety one way or another.<sup>28</sup>

Further, a study of brown bears' wariness toward humans in Eurasia concluded that the availability of human foods was a more significant determinant of wariness than hunting

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<sup>21</sup> See Bombieri et al. 2019, p. 4.

<sup>22</sup> *Id.* at p. 5.

<sup>23</sup> See FWP, Grizzly Bear Montana Hunting Regulations, p. 4.

<sup>24</sup> See [https://missoulian.com/news/local/dead-bears-don-t-learn-anything-biologists-balk-at-notion/article\\_930fd1e3-31ad-571c-ad30-78d11bcd3b73.html](https://missoulian.com/news/local/dead-bears-don-t-learn-anything-biologists-balk-at-notion/article_930fd1e3-31ad-571c-ad30-78d11bcd3b73.html) (Nov. 30, 2017).

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*

<sup>27</sup> *Id.*

<sup>28</sup> See <https://www.counterpunch.org/2016/01/15/hunting-to-scare-grizzly-bears/> (Jan. 15, 2016).

(Swenson 1999). The author determined that “[t]he availability of human-derived foods apparently caused bears to lose their wariness, even when hunted.”<sup>29</sup> This finding speaks to the importance of securing human food and other attractants—both to reduce conflicts and to maintain bears’ wariness toward people.

In sum, the evidence above indicates that hunting bears is unlikely to reduce attacks or make people safer. Indeed, it could have the opposite effect: more hunters in grizzly bear country, moving slowly and silently, and often alone, could result in more startled bears, which could result in more human injuries and deaths. Taking steps to avoid surprising bears, and to prevent them from accessing human foods and other attractants, appears much more likely to maintain bears’ wariness and keep humans and bears safe.

#### **IV. Conclusion and Recommendations**

For the reasons described above, hunting grizzly bears in Montana would most likely not reduce conflicts or reduce attacks on humans. It could even put more people at risk. As a result, we urge the Advisory Council to make the following recommendations:

- 1) FWP should not hold hunting seasons for grizzly bears in Montana.
- 2) FWP—and other agencies—should instead continue to provide information and resources (such as assistance with installing electric fencing around attractants, or supplying bear spray) to ensure that those who live, work, and recreate in grizzly bear country can do so safely.
- 3) FWP and the Montana Fish and Wildlife Commission should undertake a rulemaking process to delete the inaccurate and outdated statements in Montana’s Grizzly Bear Policy, including those that say sport hunting is the “most desirable method” of “minimizing depredations against private property” and “minimizing grizzly bear attacks on humans.” This language should be replaced with evidence-based statements that identify strategies such as public education and proactive conflict-prevention as the most effective ways to minimize negative human-bear interactions.

These actions are the best way to reduce human-grizzly bear conflicts and ensure the safety of both humans and bears in Montana. Thank you for considering these comments.

Sincerely,

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<sup>29</sup> See Swenson 1999, p. 159.



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