

I use the National Forest for mountain biking, hiking, floating, camping and cross country skiing. I am a conservationist and environmentalist. My comments will focus on uses in the Gallatin Range and Wilderness designation.

I feel extremely fortunate to call this area of the world my home and have the opportunity to be in the National Forest within a few minutes of leaving home in Big Sky.

The Gallatin Range is the last unprotected mountain range connected to Yellowstone National Park. It is home to the second largest population of grizzly bears in the lower 48. It is part of one of the largest nearly intact temperate-zone ecosystems on Earth. It provides a travel corridor for wildlife coming out of the Park and winter range for many animals. The range is critical habitat for grizzly bears, lynx, wolverines, bighorn sheep, and other rarer mammals. Here you can still find the full complement of original large wildlife species that were on the landscape 500 years ago. The main priority of the Forest Plan should make sure that the landscape maintains these qualities for eternity. Once it's gone we can never get it back.

We cannot afford to compromise when it comes to protecting this special place, especially with increasing threats to the area caused by climate change as well as increasing human population due to unprecedented growth in the area. Bozeman is one the fastest growing non metropolitan areas in the country. . Because of these challenges I support Alternative D which will protect the roadless areas of the Gallatin Range better than any other way—through official Wilderness designation provided by The Wilderness Act.

Yes, this will limit the places that I can mountain bike or that I may want to motor to when I get older but if we want to keep this place The Last Best Place, we are all going to have to make sacrifices.

While many mountain bikers will argue that their impact is no different than hikers, studies show information to the contrary. "Noted biologist Lance Craighead in his 2015 report on the Gallatins pointed out: "Disturbance due to human activities reduces the amount of habitat available for use by wildlife, increases stress, and depletes energy reserves, thus reducing the carrying capacity of the habitat: the best habitat for wildlife is found in areas with the least human disturbance."

The following is drawn from his report:

Displacement of elk (avoidance of habitat near trails) can extend up to 500 meters (550 yards) from a hiker, beyond 750 meters (820 yards) from horseback riders, and beyond 1500 meters (1,640 yards) from mountain bike and ATV riders according to some studies, while other studies arrived at different distances. Most studies agree however that hikers create the least disturbance, followed by horses, mountain bikes, motorcycles and ATV/ORVs.

Roads have been shown to be the most important variable correlating human influence on grizzly habitat. Trails with motorized traffic have effects on wildlife that are similar to roads. And a growing body of evidence suggests that non-motorized trail use by mountain bikers also displaces grizzlies.

Many wildlife species will avoid trails even when users are not present. "Elk displayed avoidance of the trail even when no ATV's or other users were present (Wisdom et al. 2004)" In other words increased recreational use will eliminate important habitat. This often causes a permanent loss of habitat as animals from elk to grizzlies tend to avoid heavily used trails.

Another study found that elk increased their travel time during most disturbance, which reduced time spent feeding or resting. Elk travel time was highest during ATV exposure, followed by exposure to mountain biking, hiking, and horseback riding. Elk reacted negatively to ATV traffic at distances up to 1,000 meters and had a high probability of fleeing if they were near an ATV trail when ATVs were detected. It appeared that elk would habituate to horseback riding, but not to mountain biking.

Some mountain bike supporters assert that scientific studies are inconclusive about recreational impacts.

Responding to this assertion, Lance Craighead notes: “Aside from some poor study designs, the factor that is ignored in reaching this conclusion is the fact that mountain bikers travel a lot farther than hikers in the same time period and thus create a disturbance over a much larger area; even if the disturbance is equivalent to hiking at any given point. This point is made by Vandeman (Vandeman 2004) who represents the opposite side of the mountain bike spectrum from Sprung; each has a website promoting their views. In one study by Wisdom et al. (2004) the same 20-mile (32 km) study area was covered by one pair of users on ATV’s, 2 pairs of mountain bikers, and 3 pairs of hikers to traverse the distance in the time allotted.”

A literature review in 2009 reviewed impacts on 21 wildlife species in Mount Spokane State Park in Washington and documented studies that found impacts on elk and wolverine among other species (Snetsinger and White 2009). The mere presence of trails negatively impacts 14 of the 21 species, and areas of concentrated recreation/recreational development negatively impacted an additional seven species.

Craighead notes that the southern end of the HPBH WSA (Buffalo Horn) is within the grizzly bear Primary Conservation Area.

“Recreational development increases bear mortality risk and alienates bears from preferred habitats such as riparian areas. The effect of developments on mortality extends up to 6 km from the recreational site (Mattson and Knight 1991). Even non-motorized trails may be avoided to a distance of 300 m (Kasworm and Manley 1990, Mace et al. 1996).”

Mace and Waller (1998) offer another insight on how recreation can affect bears when they studied recreational impacts on bears in the Jewel Basin hiking area east of Kalispell, Montana. They concluded that bear use of habitat increased with greater distance from trails and lakes with campsites.

Herrero & Herrero (2000) studied the incidence of conflict/interaction between humans and grizzly bears (*Ursus arctos horribilis*) along the Moraine Lake Highline Trail in Banff National Park. They found that, though intensity of use was much lower for mountain bikers than for hikers along this trail, mountain bikers accounted for a disproportionately high incidence of conflict with bears."

Thank you for the opportunity to comment and for all the work the Forest Service Staff has done to involve the public on this important process.

Sincerely,
Katie Craig Scherfig