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Comments:

My name is Will Charlton, a resident of Bozeman Montana. I'm an avid outdoorsman, skier, hunter, hiker, and OHV enthusiast with a passion for snowmobiling. I make a living as an EMT on an ambulance and as a fire line qualified EMT on wildfires throughout the region. Furthermore I volunteer as a firefighter and SAR member. I have a degree in microbiology, and I am applying to medical school. My life's work has been dedicated to serving others, and I take others opinions and wellbeing seriously. This is true even as I ask you to not designate more wilderness that bars thousands from recreating in a responsible manner. Our use of over-snow vehicles has been proven time and time again to has no significant effect on our pristine wildernesses. I wouldn't advocate for open access if our recreation had a deleterious effect on the lands we all love. I support alternative A, no action.

Every additional square mile of wilderness designation becomes a tragic loss for responsible mechanized recreation enthusiasts. Their means to enjoy and interact with great outdoors stripped away despite every effort to leave no trace. Lands that were once used responsibly now lay unutilized, unappreciated. Worse yet, nothing was gained. A conservation designation does not change the land, it does not make it better, if anything, it inspires less people to regard its wellbeing.

Wilderness designations have an extensive impact on snowmobilers. When winter descends upon the mountains, they can use the blanket of snow that ensues to traverse the backcountry. A few main grievances persist against snowmobiles and over snow travel: noise, ground effect, pollution, and disturbing wildlife. The aforementioned genuine environmental concerns have been virtually eliminated.

According to the International Snowmobile Manufacturers Association (IMSA), snowmobiles were noisy, at full throttle a 1969 era snowmobile emitted sound levels of 102 dB(A) from a distance of fifty feet. Snowmobiles produced after June 30, 1976, are regulated to 73dB(A) at a distance of 50 feet while traveling at 15 miles per hour when tested under the Society of Automotive Engineers J-1161 test procedure. To put this into perspective, a snowblower emits 110 decibels and lawnmowers emit 80 decibels. A modern snowmobile under full throttle emits the same amount of noise as a car traveling at constant highway speeds. The IMSA paper further states "U.S. Forest Service researcher Robin Harrison reported that under usual wildland conditions, snowmobile operation is undetectable to the human ear at distances of more than 750 feet."

Concerns that snowmobiles cause permanent damage to the ground and vegetation also drives wilderness designations. While snowmobiles may appear large and heavy, the physics of over-snow travel dictate the exertion of very little ground pressure. Per IMSA, a four-wheel drive vehicle exerts thirty pounds per square inch (PSI) of ground pressure, horses eight PSI, hikers five PSI, and a snowmobile exerts 0.5 PSI "(All vehicle weights include an estimated weight of 210 pounds for one person and his/her gear)". That empirical data provides insight as to why the Department of the Interior stated in a study that; "A major distinction is warranted between snowmobiles and other types of off-road vehicles. Snowmobiles operated on an adequate snow cover have little effect on soils." A peer reviewed article in the Journal of Environmental Quality found that snowmobiles had no impact on vegetation and that measurements of soil density directly under snowmobile trails showed no signs of earth compaction. In a master's thesis, Thomas Grady found that snow compaction (distinct from earth compaction) incurred by over snow travel, can actually reduce sediment runoff. Finally, with adequate snow coverage, about six inches higher than vegetation, snowmobiles cause little to no damage to underlying flora.

As with any activity that involves an internal combustion engine, pollution is a byproduct in the form of carbon monoxide and other volatile material emissions. While certainly undeniable that snowmobiles or any motorsports produce pollution, the question should focus on any tangible impact to the immediate environment. The National Park Service (NPS) conducted an extensive study in 2011 regarding over snow travel in the park and environmental concerns. Their findings are most aptly prefaced with a direct quote, "The fate of OSV-specific (over snow vehicles) pollutants within Yellowstone National Park have not been fully characterized, but we can infer from the available data that most potential ecosystem effects from OSV are negligible." When studying the potential effects of carbon monoxide emissions, the NPS concluded that "No effect of OSV-emitted CO is expected on wildlife or vegetation at the atmospheric levels recorded in Yellowstone National Park (less than 3 ppm; Ray, 2010)." The NPS also states that the levels, "are well below the federal air quality standards at the congested areas" and that the levels drop off rapidly with distance from the roads or trails (approach background concentrations at 300-500 meters). Volatile organic compounds (VOC) release concerns environmentalists' regarding OSV use. However, the NPS reported in snowmelt data from 2003-2004, VOC concentrations were low and did not exceed EPA standards, and well below levels that could impact aquatic systems.

Direct encounters with wildlife in pristine areas provides the public with another concern of OSV use. Yellowstone National Park has acted as a great testing ground for how animals respond to motorsports, as it currently houses both non-mechanized and mechanized activities. Amanda Hardy, in her 2001 thesis, reported that "Winter recreation in Yellowstone national park is coexisting with Bison and Elk, without causing declines in population levels and the continued use of traditional winter ranges remains unchanged." The NPS spent roughly \$160,000 per year between 2003 and 2005 to complete the report: Wildlife Responses to Motorized Winter Recreation in Yellowstone. Completed with assistance from Montana State University, they reported that "87% of 21,936 animals observed. had no visible response to over-snow vehicles." Of the 13% that "exhibited an observable response," 68% looked directly at the people viewing them then resumed action, the remaining 32% was composed of more active responses (standing, rise from bed, etc.). Only 3% of the animals 100 meters or more from an OSV demonstrated a visible response. Birds followed the trend; zero flights were initiated by snowmobiling. Canfield et al. in a study on Montana's ungulates reported that "snowmobiles appear less distressing than cross country skiers." IMSA, referenced statements by John Monarch, wildlife biologist, when he stated, "I have found that wildlife reacts more to a person walking or cross-country skiing than when they are in a vehicle, or a snowmobile or ATV."

While no recent economic study of snowmobiling in Montana exists, a study was recently conducted in Idaho which could be an indicator for the economic impact in Montana. An economic study conducted by Dr. Geoffrey Black et al. for the Idaho Department of Parks and Recreation through Boise State University, reported during 2015-2016 "18,023 households that own one or more snowmobiles spent approximately \$197.5 million." "Economic Impact and Importance of Snowmobiling in Idaho" broke down the expenditures: Snowmobiles and related equipment \$57 million; maintenance \$4.8 million; fuel \$42 million; food and beverages \$44 million; storage \$0.4 million; other retail \$31 million. The expenditure of \$197.5 million dollars increased employment by 4,062 jobs and labor income by \$108.2 million. Value added also increased, "which is a summation of labor income interest, rent, and profit, by \$160.7 million." Finally, the output of locally produced goods and services increased by \$157.3 million. Snowmobiling contributed \$623.7 million or 1.04% to Idaho's gross domestic product of \$59.694 billion (Bureau of Economic Analysis). Per IMSA, 1.2 million snowmobiles are registered in the United States, the economic impact of restricting their use needs consideration.

While most of these facts have directly dealt with snowmobiles, one can assume that the theme remains the same for other user groups in the backcountry without reading several more pages detailing the facts for each motorsport or non-motorized mechanized sport (cyclists). Instead of taking a hardline approach to limiting motorized recreation on public land, environmental groups and other concerned parties should heed available information produced by scientists, government agencies, academic institutions, and the public in support of motorsports. Pragmatic solutions exist concerning land management which temper grievances on both sides of the debate; the multiple use strategies implemented on national forest provide an excellent example. Pristine backcountry and mechanical recreation can coexist.

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