

Seeing the Forest and the Trees



Assessing Snowmobile Tree Damage in National Forests

A Report by Winter Wildlands Alliance
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Typically, when land management plans address the environmental impacts of snowmobiles, the focus is on air quality, noise and wildlife impacts. Little has been documented regarding the impacts of snowmobiles on vegetation.

Recently, Winter Wildlands Alliance, a national nonprofit organization that promotes human-powered winter recreation, learned that the US Forest Service, as part of forest re-vegetation surveys, has gathered data documenting tree damage caused by snowmobiles in the Gallatin National Forest near West Yellowstone, Montana. The tree damage data show that in addition to well-documented impacts on air quality and endangered lynx, caribou and other animals, snowmobiles may be more directly and immediately impacting the health of forests. Simply put, USFS data demonstrate snowmobiles are chopping the tops off of trees, possibly in significant numbers.

As part of ongoing efforts to evaluate regeneration and thinning needs, the Gallatin National Forest (GNF) conducted regeneration transect surveys of previously logged timber stands. These surveys are required by NFMA (the National Forest Management Act), and look for a variety of damage types and causes, including insect-, disease- and human-caused damage. Through a Freedom of Information Act (FOIA) request, Winter Wildlands Alliance acquired and analyzed the Gallatin National Forest regeneration survey data collected through 1996, when funding cuts curtailed regular survey efforts.

Forest Service surveyors were asked to identify and quantify tree damage observed. Snowmobile damage wasn't difficult to identify—surveys often include notes such as “Broken tops from snow machines.”

Gallatin National Forest surveys show that between 1983 and 1995, snowmobiles damaged between 12 and 720 trees per acre in the approximately 72,393 acres of harvested areas studied on the 1.8 million-acre Gallatin National Forest. Tree damage caused by snowmobiles was specifically noted on 366 acres, or 0.5% of areas surveyed.

The rate of tree damage throughout unsurveyed areas of forest may be even higher. The Gallatin's surveyed only areas that had been logged, which is a small portion of the overall acres used by winter recreationists. Surveyed sections were not necessarily heavily used by snowmobiles, though three mentioned the presence of snowmobile trails in the stand. Given that GNF snowmobile use has increased since surveys stopped in 1996, it's almost certain that additional surveys focusing on tracts used by snowmobiles would demonstrate even greater impacts. The three stands surveyed with the highest rates of tree damage had snowmobile trails within the tracts (see chart below).

Tree damage not only hurts the environment, it wastes taxpayer money. The areas surveyed by the GNF were re-planted by the Forest Service after logging. Allowing damage to continue unchecked disregards the investment we taxpayers have made into our natural resources. USFS policy should protect its investment in renewable forest products, not allow it to be destroyed by careless recreationists.

While this Forest Service data covers only one national forest, it clearly shows that the potential for tree damage from snowmobiles is significant across all Snowbelt forests and points to the need for better management of over-snow vehicles. Given the potential for snowmobiles to cause damage over many acres and miles of forest per day, prudent management policy would prohibit un-

managed and off-trail over-snow travel in forested areas to reduce or eliminate future tree damage, and protect important natural resources and taxpayer investment.

Summary of tree Survey Data Provided by USFS

Timber Stand Number	Area name	Year logged	Year inventoried	Acres	Avg # damaged trees per acre	Total number of trees damaged
07-01-04-005	Little Teepee Creek Drainage	1969	1995	122	140	17,080
07-03-02-062*	Horse Butte Road*	1992	1995	15	514*	7710*
7-04-05-063	Madison Arm	1991	1995	12	5	60
7-07-02-037	Unknown	1960s	1983	68	23	1564
7-07-02-038*	Unknown*	1960s	1983	100	652*	65,200*
7-08-03-038*	Cream Creek*	1986	1995	60	725*	43,500*
	<i>*surveys note the presence of a snowmobile trail in this stand</i>				Total damaged trees	135,114