

# Lynx & Over Snow Vehicle Use Summary

## General Overview of Over Snow Vehicle Use Impacts to Lynx

The following excerpt is from the Biological Opinion on the Revised Forest Plan for the Idaho Panhandle National Forests (USFWS 2013):

**“General Effects of Dispersed Winter Recreation on Lynx.** Snowmobiling, cross-country skiing, and snowshoeing are popular activities within higher elevation environments. Concerns regarding the effect of winter recreation on lynx behavior and habitat use remain a focal point for land management agencies. Compacted trails created by snowmobiles, cross country skiers, and snowshoes may increase access to lynx winter habitat for competitors and predators, particularly coyotes. Disparate conclusions from previous studies suggest that compacted snow and dietary overlap between coyotes and lynx may vary spatially and temporally. For example, Kolbe et al. (2007, entire) backtracked coyotes in Montana and found that coyotes did use snowmobile trails, however, they did not travel closer to these trails than randomly expected. Instead, coyotes adapted to deep snow conditions by selectively using habitats with shallower and more supportive snow (Kolbe et al. 2007, p.1414; Bunnell et al. 2006, p.836). Kolbe et al. (2007, p.1414) found no difference between coyotes’ use of compacted and uncompacted roads. This suggested that coyotes may be selecting for open travel corridors instead of snow conditions. However, a more recent study in Wyoming using similar methods to Kolbe et al. (2007, pp.1410-1412) found that coyotes traveled on or near compacted trails more than random expectation (Burghardt-Dowd 2010, pp.64-66). Results from this study indicated that average snow penetrability was higher in northwestern Wyoming than in western Montana, making coyote movement in non-compacted snow potentially more energetically costly to coyotes in Wyoming (ibid, pp.76-77).”

## Relevant Forest Wide Goals

- GOAL-WL-01. The IPNF manages wildlife habitat through a variety of methods (e.g., vegetation alteration, prescribed burning, invasive species treatments, etc.) to promote the diversity of species and communities and to contribute toward the recovery of threatened and endangered terrestrial wildlife species.

## Relevant Forest Wide Desired Conditions

- FW-DC-WL-03. Recovery of the terrestrial threatened and endangered species is the long-term desired condition. Foraging, denning, rearing, and security habitat is available for occupation. Populations trend toward recovery through cooperation and coordination with USFWS, state agencies, other federal agencies, tribes, and interested groups.

## Relevant Forest Wide Standards

- FW-STD-WL-01. The Northern Rockies Lynx Management Direction (2007) and ROD is included in appendix B, and shall be applied.

## Relevant Northern Rockies Lynx Management Direction

- **Objective HU O1:** Maintain the lynx's natural competitive advantage over other predators in deep snow, by discouraging the expansion of snow-compacting activities in lynx habitat.
- **Guideline HU G11:** Designated over-the-snow routes or designated play areas should not expand outside baseline areas of consistent snow compaction, unless designation serves to consolidate use and improve lynx habitat. This may be calculated on an LAU basis, or on a combination of immediately adjacent LAUs.
  - This does not apply inside permitted ski area boundaries, to winter logging, to rerouting trails for public safety, to accessing private inholdings, or to access regulated by guideline HU G12.
  - Use the same analysis boundaries for all actions subject to this guideline.
- **Guideline HU G12:** Winter access for non-recreation special uses and mineral and energy exploration and development, should be limited to designated routes or designated over-the-snow routes.

## Available GIS DATA

**Lynx Analysis Units** - This coverage includes the Lynx Analysis Units (LAUs) polygons for the Idaho Panhandle National Forests.

## Definitions from Northern Rockies Lynx Management Direction

**Area of Consistent Snow Compaction** – An area of consistent snow compaction is an area of land or water that during winter is generally covered with snow and gets enough human use that individual tracks are indistinguishable. In such places, compacted snow is evident most of the time, except immediately after (within 48 hours) snowfall. These can be areas or linear routes, and are generally found in or near snowmobile or cross-country ski routes, in adjacent openings, parks and meadows, near ski huts or plowed roads, or in winter parking areas. Areas of consistent snow compaction will be determined based on the acreage or miles used during the period 1998 to 2000.

**Designated Over-the-Snow Routes** – Designated over-the-snow routes are routes managed under permit or agreement or by the agency, where use is encouraged, either by on-the-ground marking or by publication in brochures, recreation opportunity guides or maps (other than travel maps), or in electronic media produced or approved by the agency. The routes identified in outfitter and guide permits are designated by definition; groomed routes also are designated by definition. The determination of baseline snow compaction will be based on the miles of designated over-the-snow routes authorized, promoted or encouraged during the period 1998 to 2000.

**Designated Route** – A designated route is a road or trail that has been identified as open for specified travel use.