with domestic sheep. See Appendix D (Species of Local Concern) for full discussion.

Trampling by domestic livestock may alter the form of stream banks, eliminating nest sites for birds like the Cordilleran Flycatcher. Degradation of water quality by increased sediment and by deposits of fecal material may adversely effect aquatic animals like the sensitive amphibians and Hudsonian emerald.

Domestic livestock grazing would continue to be permitted under all of the alternatives. Livestock management standards and guidelines apply to all MAs that permit livestock grazing, so impacts to wildlife generally will be the same under all alternatives except F, which has a 30% utilization standard.

**Effects from Noxious Weeds**

Controlling noxious weeds in infested areas will help maintain habitat for some species of wildlife. Noxious weeds can adversely impact herbaceous cover and forage for some species, including elk, some ground-nesting birds, and small mammals like Preble's meadow jumping mice. The Revised Forest Plan provides general direction to control noxious weed infestations and to implement the Forest-wide noxious weed plan. It is not expected that any of the alternatives will provide control adequate to halt or reverse the spread of noxious weeds on the forest, although rate of spread over the long-term should be reduced.

**Effects from Recreation Management**

Some types of recreational activities can result in direct loss of wildlife habitat, disturbance, and temporary or permanent displacement of species. Effects on wildlife would primarily be associated with increased disturbance from people. Any expansion or construction of new facilities would include an analysis of site-specific effects on wildlife. Increases in the trail system the alternatives (see following Table) are modest. Effects will depend on the location and cannot be generalized.

Table 3-93. Expected increase in trail system for each alternative for the desired condition.

| **Trails constructed (miles/yr) per alternative** | A | B | C | D DEIS | D FEIS | E | F |
|---|---|---|---|---|---|---|---|
| Desired level | 8.0 | 5.0 | 10.0 | 10.0 | 10.0 | 5.0 | 4.0 |
| Based on experienced budget level- in 1st decade | 3.0 | 1.5 | 5.0 | 5.0 | 6.0 | 1.5 | 0.5 |

* Note: These values are based on the level of funding that has been available recently for the first decade of implementation of the Revised Plan.

Dispersed recreation, whether motorized or nonmotorized, has the potential to disturb and displace some wildlife species. Human activity can increase predation on passerine nests, either by attracting predators to the site or because disturbed birds flush and disclose the nest location (Gutzwiller, Riffell et al. 2002). Some nesting birds, including open country raptors and eagles, may abandon nests if disturbance is great (especially at the time of nest initiation) or the nest may fail if disturbance

interferes with foraging and feeding the young. The effects of motorized use and road density on wildlife have been covered in the discussion on security areas in this chapter.

Snowmobiles compact the snowpack. Possible effects are dealt with in the Snow Compaction section of this Wildlife report. In addition to compaction effects, research has shown that disturbance related to snowmobile use has the potential to displace wildlife, can result in habitat loss, and can sometimes lead to mortality (Bury 1978; Boyle and Samson 1985). Behavioral responses can be of both short and long duration (Knight and Gutzwiller 1995). No comparable studies are available on the effects of the quieter machines now under production.

Snowmobile use would be allowed to occur under all alternatives, but the amounts and types of use would vary. Snowmobile use would be allowed to occur in Alternative A (79% of the forest acres), B (79%), C (78%), D DEIS (67%), D FEIS (64%), E (51%), F (9%). Area in which snowmobile use can occur but is restricted to roads and trails is Alternative A (0%), B (3%), C (4%), D DEIS (11%), D FEIS (10%), E (22%), F (9%).

In lower elevation areas, particularly in crucial big game winter range, (MA 3.58), winter motorized recreation is prohibited (except on routes designated by the Forest Supervisor) between November 15 and April 30 to minimize disturbance to wintering big game.

Most studies of recreational disturbance have focused on overt behavioral responses, rather than habitat avoidance, physiological effects, or deferred effects like increase future mortality risk. Minimal information or research exists that addresses possible impacts at the population or community level. Forest Plan standards will reduce impacts from recreational activities for some wildlife species (e.g., elk calving and winter range areas, bighorn sheep lambing areas, caves, and protection of known raptor nests). Research and monitoring (Revised Plan, Chapter 4) will determine whether any site-specific changes are necessary in management of snowmobile use.

**Effects from Travel Management**

Roads and trails can impact wildlife species by direct removal of habitat during construction and reconstruction or indirect loss of habitat associated with increased human use and disturbance. Some animals are sensitive to human disturbance and will abandon habitat that is otherwise suitable in response to human use. This effect is greatly reduced when roads are closed or decommissioned. Generally those alternatives proposing the fewest miles of road construction and the most miles of decommissioning pose the least risk to sensitive species and their habitat. Based on this, adverse effects to wildlife from travel management from most to least are B, A, C, D DEIS, D FEIS, E, and F. In summer, motorized travel occurring off designated routes is prohibited in all alternatives.