

WILDLIFE: REGIONAL FORESTER SENSITIVE SPECIES (RFSS) -
TERRESTRIAL ANIMALS

Monitoring Conducted

Species

Habitat objectives and trends

At the time the Forest Plan FEIS was conducted, the Regional Forester sensitive species (RFSS) list was based on the 2000 list. In 2006, a formal update of this list was conducted and resulted in changes to terrestrial animals species based on new information. Black tern was removed because it no longer regularly nests on the Superior National Forest (SNF). Wilson’s phalarope was removed because it only rarely occurs, mainly as a migrant. Habitat for either species is not at any risk from management activities. Quebec emerald, a dragonfly species, was added to the list when it was discovered on the SNF in 2006. This is the first record for the species in Minnesota. Finally, in 2007 the gray wolf and bald eagle were added when they were removed from the endangered species list by the Fish and Wildlife Service.

**RFSS Sensitive Terrestrial Animals
Summary Points**

- * Management activities on all projects from 2004-2007 complied with 2004 Forest Plan direction for sensitive species.
- * Projects either had no impact or were not likely to cause a trend to federal listing or loss of viability on the Superior National Forest.

Species monitoring

The three primary ways that terrestrial animal RFSS are monitored are through 1) population monitoring; 2) presence/absence detection, and 3) nest or den occupancy and breeding productivity surveys. Appendix H summarizes these methods and displays monitoring conducted for each species.

Habitat trends and objectives

Habitat conditions are also monitored in several different ways that allow us to address consistency with Forest Plan management direction to maintain, protect, or improve habitat for RFSS.

Indicators of habitat – such as management indicator habitats (MIH) for forest type and age or spatial configurations or non-forested wetlands – are identified and the distribution and amount (in acres) is measured. For the most part these indicators are the same as those used in the 2004 Forest Plan Revision Biological Evaluation. Monitoring data are periodically updated during the year, especially for each of the large landscape scale (10,000s of acres) vegetation management projects. This ensures that managers use the most up to date information for planning and analysis of potential impacts. To determine habitat trend and sufficiency, current or projected conditions are compared to the conditions at the time the Forest Plan Final EIS was conducted in 2004.

Habitat is also monitored for some species at the site level. For example, known nests or breeding territories of goshawk, eagle, peregrine, boreal owl, great gray owl, or wood turtle are revisited to check on condition or management impacts.

There are several species that do not have measurable indicators of habitat, such as peregrine falcon that uses cliffs for nesting or Le Conte’s sparrow and yellow rail that use generally unchanging non-forest habitat. For those species habitat conditions are assessed by methods such as site visits to check habitat or aerial photo interpretation to determine suitability or the potential for impacts from management.

Evaluation and Conclusions

Population monitoring

Local (Minnesota or SNF) population trends are available only for a few of the RFSS:

Gray wolf and bald eagle: Both these species have been recently delisted from federally threatened status under the Endangered Species Act because of significant increases in their populations over the last 30-40 years. For more detailed information on their status refer to *Wildlife: Management Indicator Species* section of this report.

Black-throated blue warbler: Detections of this species on forest songbird monitoring program that has been in place on the Superior, Chippewa, and Chequamegon-Nicolet National Forests since 1991 have just begun to have adequate number of observations on SNF to meet the minimum abundance criteria for detecting trends. In 2007 the species had an increase of >9% from 1991. However, black-throated blue warblers occurred on 11 or fewer stands and their trend may be more susceptible to site-specific influences than other species. In other words, although the species shows a statistically significant increase in population, more years with more observations are needed to make sense of the increase

Peregrine falcon: In Minnesota between 1998-2007 the number of territorial pairs and fledged young rose from 24 pairs/52 fledged to 52 pairs/94 fledged. Young per successful nesting pair was 2.7 in both 1998 and 2007. Minnesota's increasing population has included ten pairs along the North Shore of Lake Superior in Cook and Lake Counties (Table 1) that have produced . Though most of these are not within the boundary of the SNF, they are close and may use the SNF for foraging.

Presence/Absence Monitoring: Key sources for presence/absence monitoring are from:

- Project-specific SNF RFSS surveys
- Minnesota DNR County Biological Surveys, Wildlife Surveys, and Nongame and Natural Heritage Program studies.
- MAPS stations (Monitoring Avian Productivity and Survivorship)
- Natural Resources Institute (NRRRI) forest songbird monitoring program
- Fish and Wildlife Service Breeding Bird Surveys

Appendix H shows differences in number of known locations for some RFSS between 2004 at the time of Forest Plan revision and 2007. For species whose known sites are tracked on the Minnesota DNR Natural Heritage Database, there have been an increasing number of locations for: heather vole, northern goshawk, peregrine falcon, bald eagle, great gray owl, wood turtle, tiger beetle, northern blue butterfly, and Quebec emerald dragonfly. There has been no change in number of sites for: yellow rail, and Mancinus alpine butterfly, Jutta arctic butterfly, and grizzled skipper butterfly. There are still no known sites for sharp-tailed grouse. Documented boreal owl nest sites remains unchanged at 12, but it is likely that new sites have not been entered into the database.

Species that are not tracked in the Heritage database and for which we do not have an adequate sample size to detect population trends include species whose rarity will likely preclude us from ever developing reliable population estimates on the SNF: three-toed woodpecker and Le Conte's sparrow. Population trends for several other species, however, can be developed

Table 1. Lake Superior North Shore peregrin falcon nesting 1988-2007. ¹

Site	Co.	First Nesting	Young
Crow Creek	Lake	2003	8
Corundum Point, Split Rock SP	Lake	1997	24
Gold Rock Point, Split Rock SP	Lake	2007	1
No. Shore Mining	Lake	1999	23
Tettegouche SP	Lake	1988	53
Birch Bay	Lake	2006	6
Kennedy Creek		1995	15
Manitou cliff	Lake	1999	16
Hwy 61 & 7	Cook	2007	2
Hat Point Cliff	Cook	1996	14
<i>Total young</i>			162

1. *Data source:* 2007 Annual Report. Midwest Peregrine Society. midwestperegrine.org

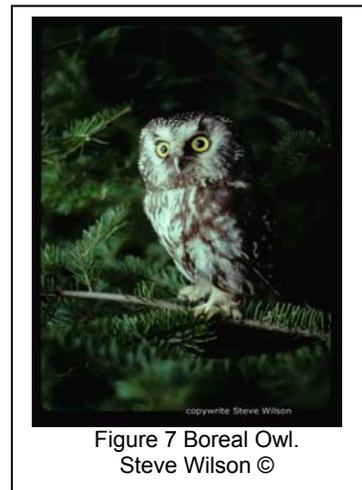


Figure 7 Boreal Owl.
Steve Wilson ©

through the forest songbird monitoring program. These include Connecticut warbler, bay-breasted warbler, and olive-sided flycatcher. For now the monitoring program provides us with information on documented sites and habitat associations.

Productivity: Monitoring known nest sites of bald eagle, northern goshawk, peregrine falcon, and, sometimes, boreal and great grey owl has provided information on nest productivity. Though data are insufficient to fully understand reproduction dynamics, there are no known significant concerns.

Habitat trends and objectives

Differences in Forest-wide (including the Boundary Waters Canoe Area Wilderness) amounts of habitat (for those species for which we have measurable habitat indicators) between 2004 and 2007 have not been reanalyzed since the 2004. Because habitat changes in the first three years of Plan implementation are relatively minor in terms of percent of total potential habitat acres, they are assumed to be within amounts projected or analyzed in the Forest Plan Final EIS. Conclusions about sufficiency of habitat that were made in the Forest Plan Final EIS remain valid. Our intent is to provide evaluation of habitat trends of RFSS in the future monitoring reports.

Since 2004, approximately 30 projects have been developed to implement the Forest Plan through 2007. Most of the eight large landscape scale vegetation management projects, in fact, were designed, in part, to either benefit RFSS by maintaining or providing for future suitable habitat or to minimize potential negative impacts. Biological Evaluations were conducted for all projects to determine impacts and all projects were either 1) likely to impact individuals but not cause a trend toward listing or a loss of viability on the SNF, or 2) were expected to have no effect. All projects were in compliance with relevant Forest Plan management direction, including standards and guidelines.