

# Forest Plan Management Indicator Species Summary

The Land and Resource Management Plan (LRMP) for the Fishlake National Forest, adopted in 1986, identified 10 management indicator species (MIS). Two categories of MIS have been established for this Forest Plan, one for ecological indicators and another to represent species of high interest.

Ecological indicator species, or guilds of species, were selected using the following criteria:

1. A strong (but not exclusive) affinity for a vegetative type.
2. A life cycle, which is keyed to a vegetative type.
3. Sensitivity to habitat change.
4. Relative ease of monitoring, i.e. easily recognized and adequate numbers.
5. Somewhat representative of other species, which use the same vegetation types.

The following MIS are included in this document: Mule Deer, Rocky Mountain Elk, Northern Goshawk, Sage Nesters, Cavity Nesters, Riparian Guild, Rydberg's Milkvetch, Bonneville Cutthroat Trout, and Resident Trout; Rainbow, Brook, Brown, and Cutthroat trout.

In order to monitor for sage and cavity nesters, and riparian dependent guild species, the forest identified specific species to monitor over time to meet the objectives of the monitoring plan located in the Fishlake LRMP chapter V-6. Biologists working on the Fishlake and Dixie National Forests collaborated to develop a list of species to monitor based on the vegetation types or habitat needs for these groups as identified in the Fishlake LRMP chapter II, table II-8A. The selection of these representative species for riparian, sage and cavity habitats were based on direction found in the Forest Service Manual (FSM 2621.1) concerning the selection of species "to assure the maintenance of viable populations of native and non-native plants and animals". It is this direction that helped biologists to select the following species for monitoring purposes.

1. Sage nesters: Brewer's sparrow, and Vesper sparrow
2. Cavity nesters: Hairy woodpecker, Western and Mountain Bluebirds
3. Riparian guild: Lincoln's sparrow, Yellow Warbler, and Song Sparrow

The reason these species were selected as MIS is described in the Fishlake LRMP Chapter II page 27-31. The objective was to select species that through monitoring populations and habitat relationships we could measure the effects of Forest Service management activities on all the fish, and wildlife that occur on the forest.

The Fishlake LRMP identifies the vegetation types these species represent in Table II-8A and II-10, on page II-29-35. These include:

**Mule Deer:** Sagebrush, mountain brush, aspen, conifer, meadow, riparian, and pinyon-juniper

**Rocky Mountain Elk:** Sagebrush, mountain brush, aspen, conifer, meadow, and pinyon-juniper

**Northern Goshawk:** Mature-old growth conifer

**Sage Nesters:** Mature sagebrush

**Cavity Nesters:** Snags

**Riparian Guild:** Riparian communities

**Bonneville Cutthroat Trout:** Cool, clear water with high oxygen content

**Resident Trout; Rainbow, Brook, Brown, Cutthroat Trout:** Streams, lakes, and reservoirs

Data used in this analysis have been collected since the plan was adopted in 1986. These data reside in files on each Ranger District across the forest. In chapter II, page 29 of the Fishlake LRMP, estimated population numbers are given for elk, deer, Bonneville cutthroat trout and Rydberg's milkvetch. The population estimates for deer and elk were based upon animals that occupied winter ranges found on the forest in 1986. Current trends were identified in chapter II, page II-32. Habitat estimates by acres for existing and potential habitat are contained within this document. These habitat estimates on existing conditions represent the most current data available to the forest. It should be noted that the data included in this document could change very rapidly due to a number of environmental events. Some examples of such events include; fire, flood, wind events, drought, cold wet winter conditions, geologic movement, human caused changes such as effects from hunting seasons, or fish population contamination (whirling disease), predators, or other rapid large scale vegetation changes on the landscape.