

## SAGE NESTERS

### **Brewer's Sparrow (*Spizella breweri*)**

The Brewer's sparrow commonly breeds in arid sagebrush steppes of western North America (Wiens and Rotenberry 1981, Baicich and Harrison 1997). The distribution of Brewer's sparrows generally coincides with the distribution of sagebrush in the West, from British Columbia, southeast to Saskatchewan, south to California, and east to New Mexico (Colorado Partners in Flight 2000). They breed in the northern Rocky Mountains of the Yukon and British Columbia, and in the Great Basin south to southern California and New Mexico. The species winters in the southwestern United States, though they are absent from the Pacific Coast (Udvardy 1994).

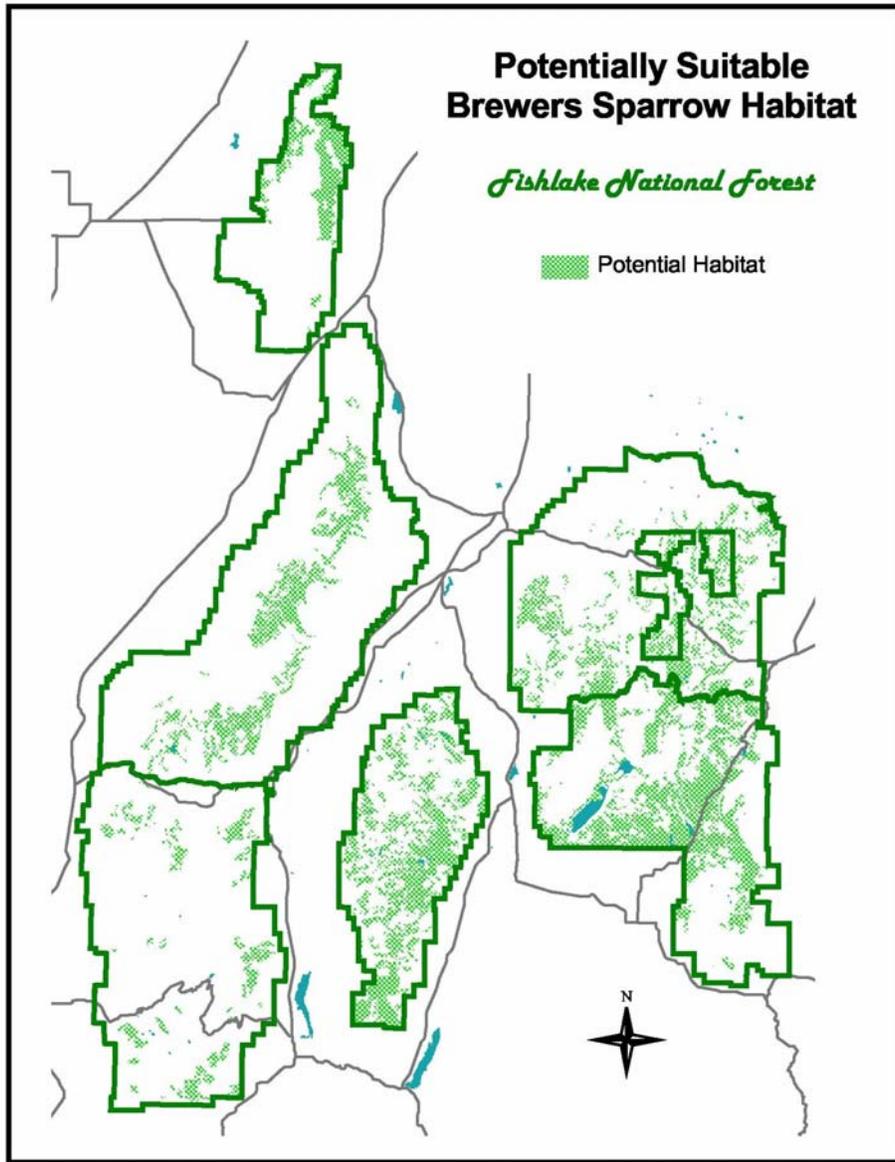
A Brewer's sparrow is approximately 5 inches (13 cm) long. It has light brown upperparts with black streaks, and pale unmarked undersides. It has a brown crown that is finely streaked with black. The ear patch is darker and well defined, and bordered by a fine black eye line. The Brewer's sparrow song usually consists of alternating trills that can be musical or buzzy.

In Montana, Best (1972) found 45-50 pairs per 100 acres in unsprayed sagebrush, and 15-33 pairs per 100 acres in the first year after herbicide spraying that killed all sagebrush. Gashwiler (1977) reported 27-36 pairs per 100 acres in Oregon sagebrush. In successional brushfields in Sierra County, California, Bock and Lynch (1970) reported 3.6 pairs per 100 acres. In the same area, Savidge (1978) found 45 pairs per 100 acres in unsprayed brush, and 22.3 pairs per 100 acres in a matched plot sprayed heavily with herbicide.

This species builds cup-shaped nests in sagebrush, with nests between 20 and 50 cm from the ground. Brewer's sparrows prefer shrubs tall enough (about 69 cm) and dense enough to provide sufficient cover (Rich 1980, Peterson and Best 1985, Best 1972). They often build their nests in the outer branches. The nest is a cup of dry grass stems, forbs, and rootlets lined with fine grasses, rootlets, and hairs (Harrison 1978). Brewer's sparrows breed primarily from late May through June (Biermann et al. 1987, Rich 1980). There are usually 3 or 4 eggs per clutch (Reynolds 1981), though occasionally 5 are laid. Incubation is between 11 and 13 days, and the altricial young fledge in 8-9 days (Ehrlich et al. 1988, Reynolds 1981, Baicich and Harrison 1997). A study in Idaho indicated nesting success to be quite low at 14% (Reynolds 1981).

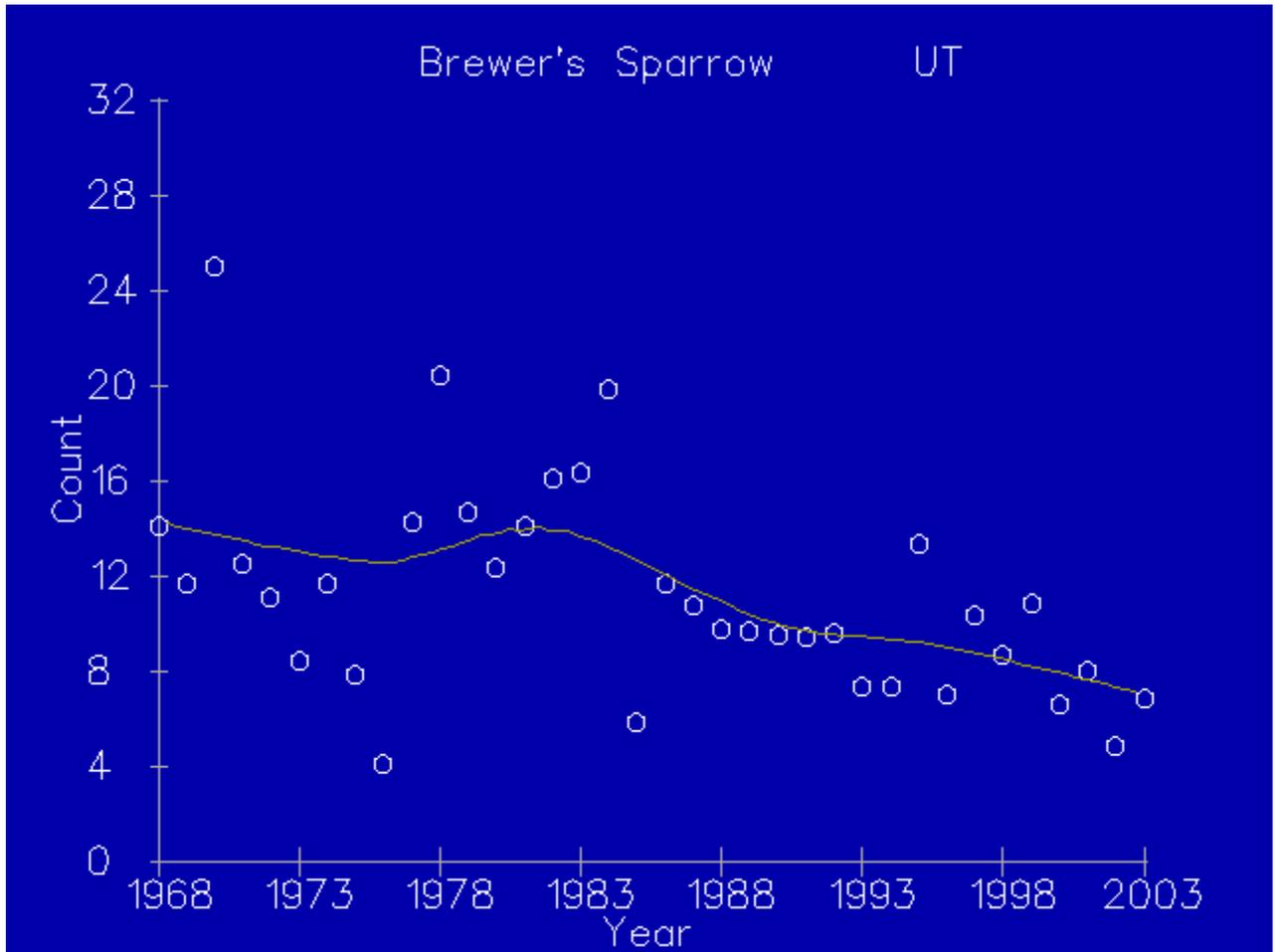
The diet of this sparrow primarily consists of insects and spiders in the summer and seeds and grasses of forbs in the winter. This species will commonly drink and bathe, but may not require free water (Bent 1968). They are able to meet water needs by eating insects (Ohmart and Smith 1970), and can subsist on dry seeds for up to 3 weeks (Ehrlich et al. 1988).

Potentially suitable Brewer's sparrow habitat has been mapped across the entire Fishlake National Forest and is displayed below. This habitat consists of approximately 213,491 acres of potentially suitable habitat.



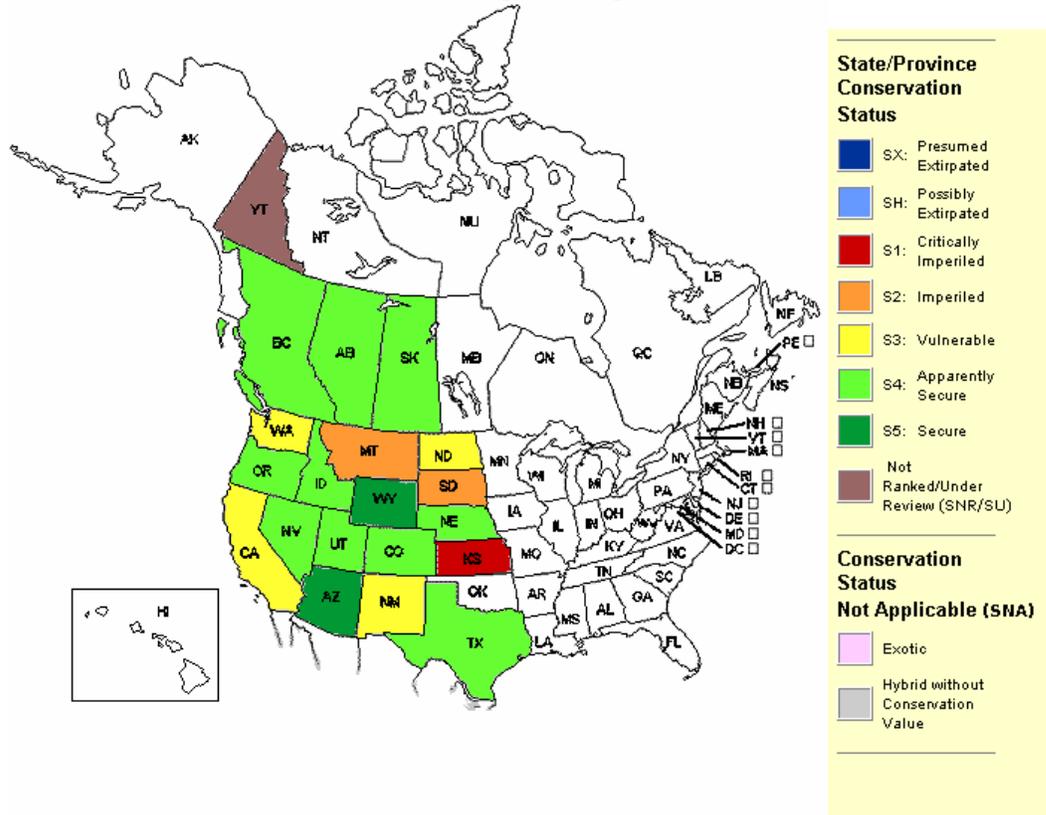
### Trend

In addition to these data, the BBS database ([www.mbr-pwrc.usgs.gov](http://www.mbr-pwrc.usgs.gov)) displays a downward trend of Brewer's sparrows in Utah. These data represent a 35-year trend between 1968 and 2003. These data were collected throughout the entire state of Utah, including points on the Fishlake National Forest.



The map below displays the status ranking from the Nature Conservancy database (NatureServe Explorer). The Brewer's sparrow has been ranked as "apparently secure".

**Brewer's Sparrow (*Spizella breweri*)**



NatureServe. 2005. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: February 18, 2005).

Surveys for avian MIS have been conducted on the Fishlake National Forest since the mid 1980's. Additional studies by "expert birders" were conducted in 1994, 1998, 2002, 2003, and 2004. These surveys have targeted cavity nesting, riparian, and sage nesting species. All other avian species were also recorded while conducting these surveys.

Data has been collected between 1994-2004. In 1994 the number of presence/absence observations of this species along each transect line-totaled 4 observations. It is important to note that this does not mean 4 birds were observed, rather, along 4 transects brewers sparrows were observed. This data was collected in the Burnt Flat area only. In 1998 forest wide surveys detected brewers sparrows along 6 transect lines. In 2002 the total number of transects with the brewers sparrow totaled 14. In 2004 Brewers were observed along 4 transect lines where 85 birds were detected. While the detection rate on transects is lower than in 2004 than 2002, the number of individuals detected was up. Data collected in 2004 was limited and not all transects monitored in 2003 were revisited in 2004. Further data is being collected to fine-tune the status of the population on the Fishlake National Forest. These data, data from the BBS, and the Nature Conservancy,

conflict in the status of trend for this species. It is my professional interpretation of these data that the trend is slightly down for this species across the Fishlake National Forest. However, I also determine that the population is viable, as preliminary data collected by the Forest Service for 2005 indicates numbers are trending upward.

## **Vesper Sparrow (*Pooecetes gramineus*)**

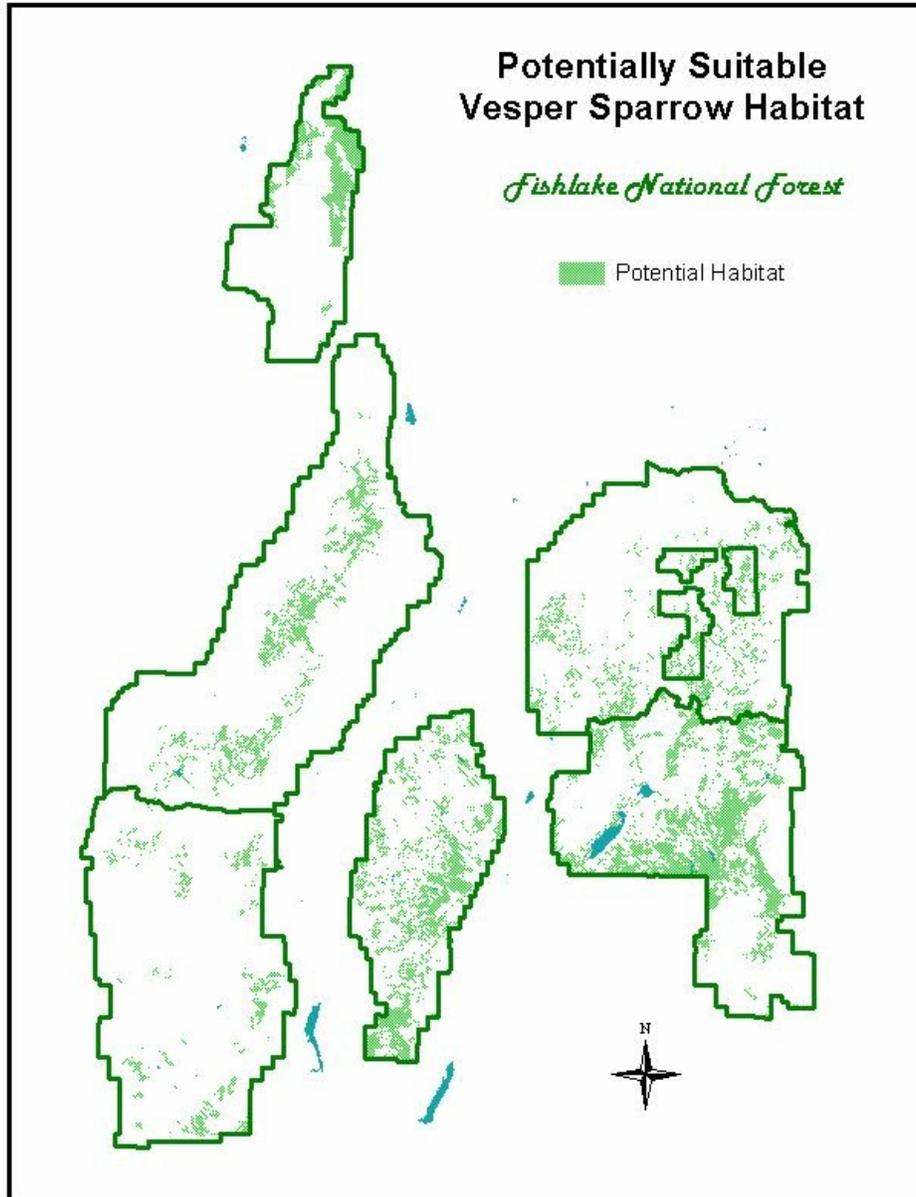
The vesper sparrow is found in fields, pastures, and roadsides in farming country. This species breeds from British Columbia, Ontario, and Nova Scotia south to California, Texas, Tennessee, and western North Carolina. It winters in California, Oklahoma, New Jersey, and Long Island (Udvardy 1994).

This species is approximately 5-6 1/2" (13-17 cm) in length. It is grayish and streaked, though there is a patch of chestnut color on the bend of the wing. It has a white eye ring and white outer tail feathers. Its song begins with 4 whistles followed by a descending trill (Udvardy 1994).

Breeding density was reported as 17.5 to 32.5 pairs per 100 acres in sagebrush-grassland in Montana (Best 1972), and 5 pairs in the Missouri River Breaks (Walcheck 1970). Breeding season starts mid-April to mid-May. Double and treble broods have been observed. Clutch size is 3-6 eggs, usually 4 or 5. Incubation lasts 11-13 days. Altricial young are tended by both parents, and leave the nest at 9-13 days, still unable to fly. Young are dependent on parents an additional 20-22 days (Baicich and Harrison 1997). This species builds a nest on the ground (Udvardy 1994). The vesper sparrow breeds in sagebrush and other shrub habitats with sparse vegetation (Wray et al. 1982, Baicich and Harrison 1997).

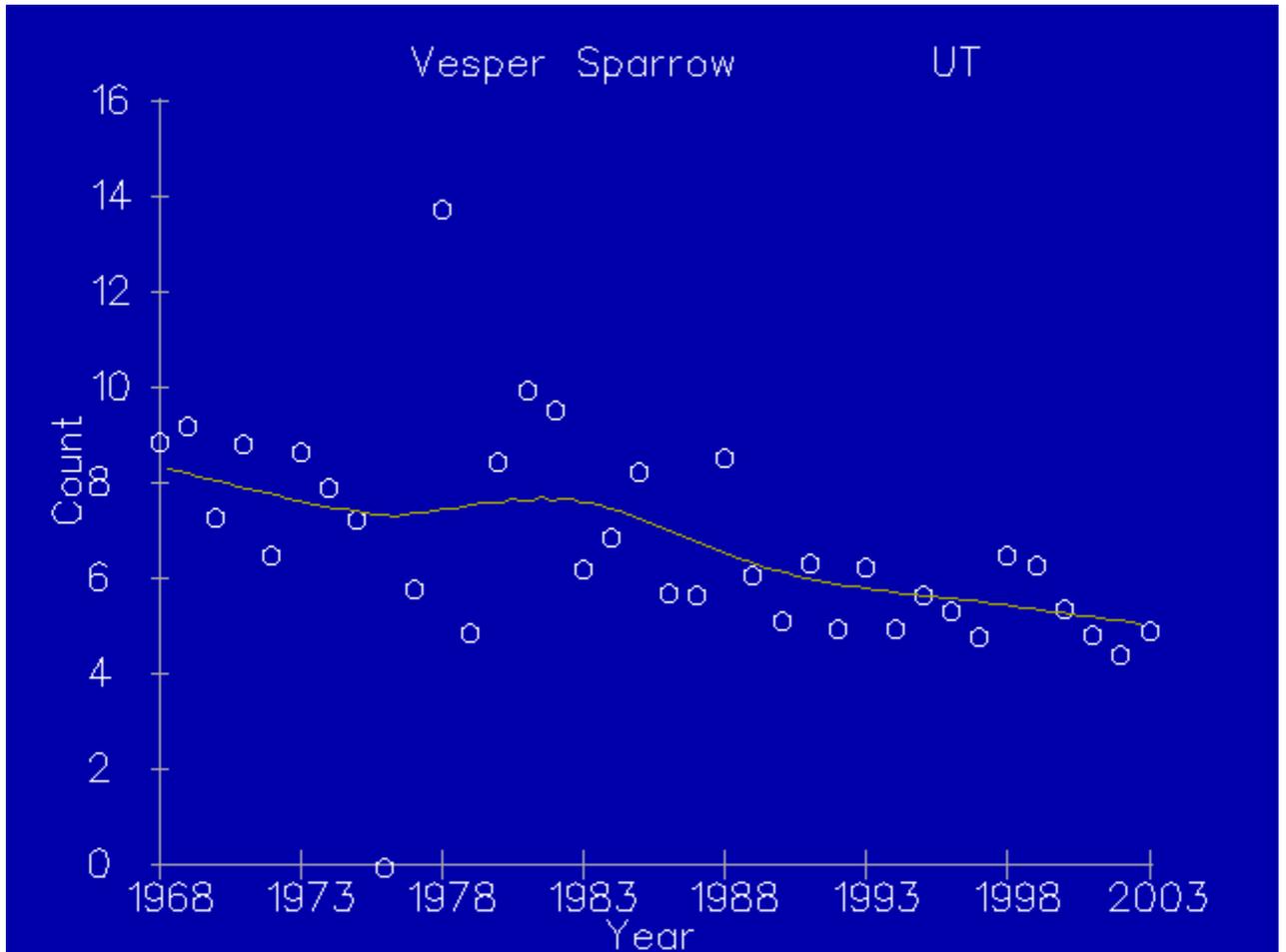
Annual diet is about half insects and spiders, and half grass and forb seeds (Bent 1968, Ehrlich et al. 1988). Ohmart and Smith (1971) observed drinking, but also recorded individuals 10-15 miles away from known surface water. Captives drank 19.7% of body weight per day, but could survive on dry seeds without water.

On the Fishlake National Forest suitable habitat occurs for the Vesper sparrow across all four Ranger Districts. The map below displays approximately 213,491 acres of potentially suitable habitat across the forest.

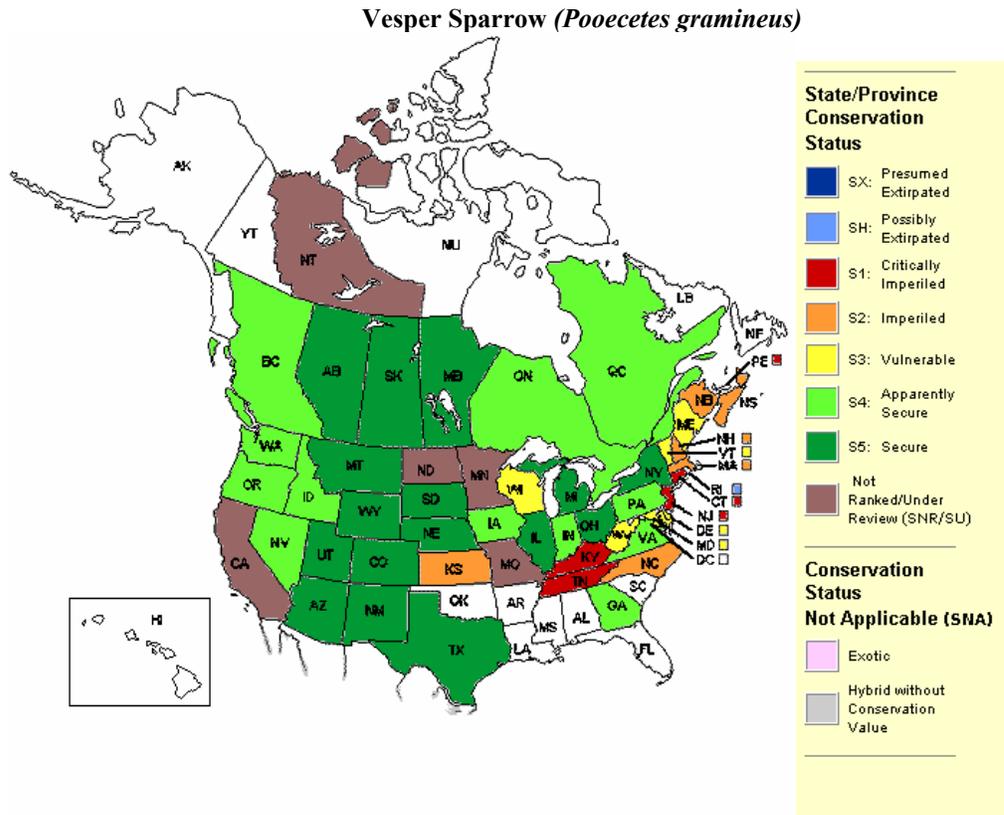


### Trend

In addition to these data, the BBS database ([www.mbr-pwrc.usgs.gov](http://www.mbr-pwrc.usgs.gov)) display a slight downward trend of Vesper sparrows in Utah. These data represent a 35-year trend between 1968 and 2003. These data were collected throughout the entire state of Utah, including points on the Fishlake National Forest.



The map below displays the status ranking from the Nature Conservancy database (NatureServe Explorer). The Vesper sparrow in Utah has been ranked as “secure”.



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Surveys for avian MIS have been conducted on the Fishlake National Forest since the mid 1980’s. Additional studies by “expert birders” were conducted in 1994, 1998, 2002, 2003, and 2004. These surveys have targeted cavity nesting, riparian, and sage nesting species. All other avian species were also recorded while conducting these surveys.

Data has been collected between 1994-2004. In 1994 this species was not detected along transect lines in the Burnt Flat area. In 1998 the number of presence/absence observations of this species along each transect line totaled 6. In 2002 the total number of observations along transect lines forest wide totaled 9. In 2004 this species was detected along 4 transect lines on the Richfield Ranger District, with 154 bird observations. As a result of these data collected over the past 10 years, this species has increased in total numbers of birds detected at collection points along the line, however, detections along transect lines were down in 2004. Data collected in 2004 was limited and not all transects monitored in 2002, and 2003 were revisited in 2004. Further data is being collected to fine-tune the status of the population on the Fishlake National Forest. However, considering all the data presented in this document, and my professional

interpretation of these data, this population is in a slight downward trend across the forest but likely still viable.

## **Sage Thrasher (*Oreoscoptes montanus*)**

The sage thrasher breeds from southern British Columbia, central Idaho, and southern Montana, south to southern California, southern Nevada, New Mexico, and western Oklahoma. It winters mainly in the southwestern United States and southern Texas (Udvardy 1994). The sage thrasher breeds primarily in semiarid sagebrush plains, but may extend into shrubby or open woodland growth on foothills (Baicich and Harrison 1997). In an Idaho study, 7 breeding territories in sagebrush averaged 0.96 ha (2.3 ac), ranging from 0.64-1.64 ha (1.6-4.0 ac) (Reynolds and Rich 1978).

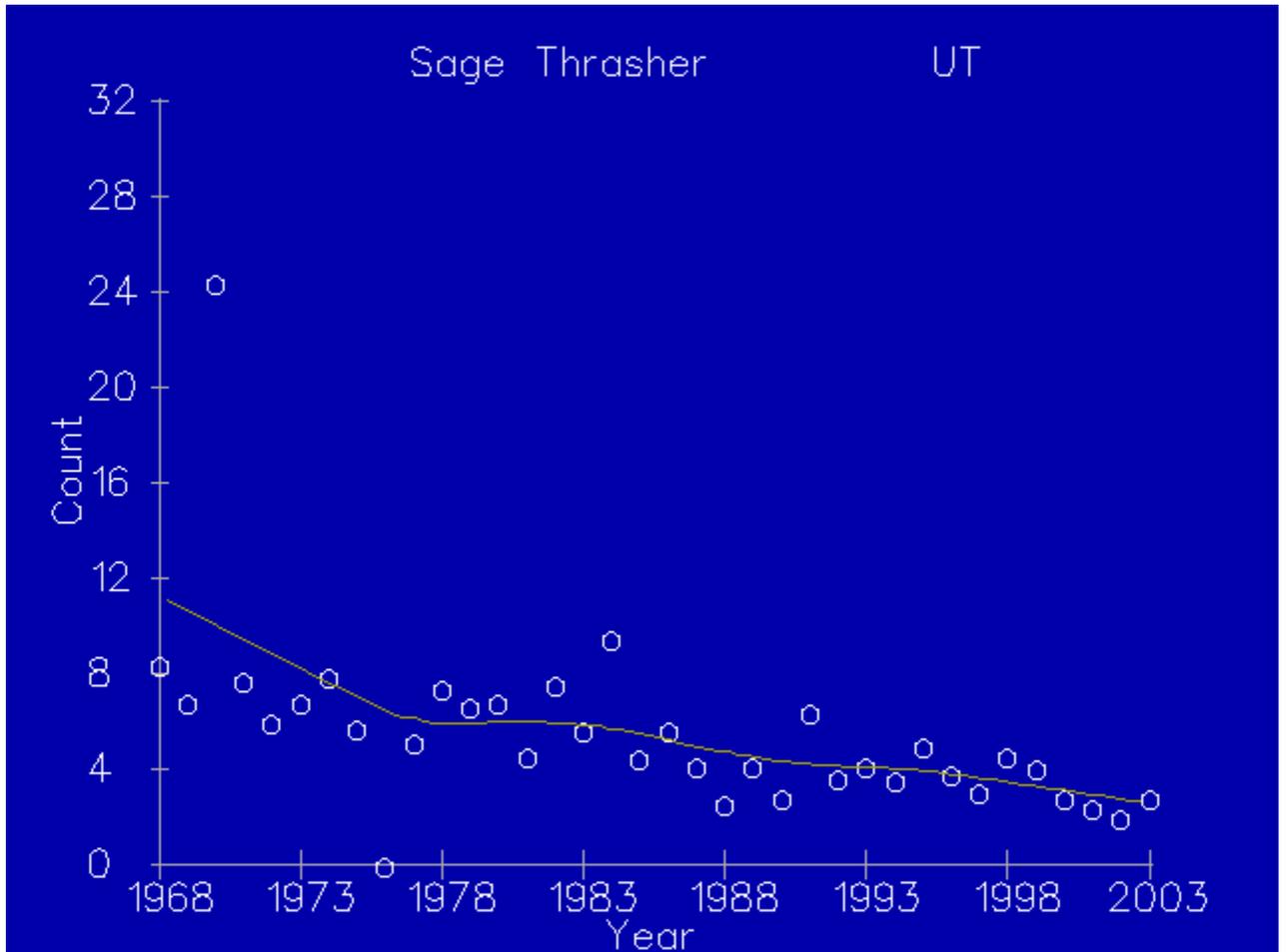
Sage thrashers eat insects and other small, terrestrial arthropods. They also eat berries when the fruit is in season. The sage thrasher gleans prey, including great numbers of grasshoppers and Mormon crickets from the ground beneath and between shrubs (Knowlton and Harmston 1942). The sage thrasher apparently reduces nest parasitism by removing cowbird eggs from its nest (Rich and Rothstein 1985).

The sage thrasher breeds in late April and early May (Rich 1980). A clutch usually consists of 1-5 eggs (Reynolds 1981). Incubation ranges from 13-17 days (Reynolds 1981), averaging 15 days (Baicich and Harrison 1997). Killpack (1970) reported an 11-day nestling period in a Colorado study. Both parents tend their altricial young (Killpack 1970). Nests are built either on the ground below sagebrush or in the branches near the main axis of the plant (Reynolds 1981, Rich 1980). When built in a sagebrush, the nest is well concealed in a plant about 83.6 cm high, with the nest 23 cm above the ground (Rich 1980). It may be lined with rootlets and grass, and often with fur or feathers (Udvardy 1994). The sage thrasher requires some foliage for cover above the nest (Rich 1980).

The Fishlake National Forest has expanded the search for sage related species to include the sage thrasher. In 2003 there were 14 detections of sage thrasher on transect lines on the Fishlake National Forest. In 2004 there were 12 detections. These detections occurred on the Richfield Ranger District. Data collected in 2004 was limited and not all transects monitored in 2003 were revisited in 2004. Further data is being collected to fine-tune the status of the population on the Fishlake National Forest. Additional field surveys will continue to add to the knowledge concerning trend on the Fishlake National Forest.

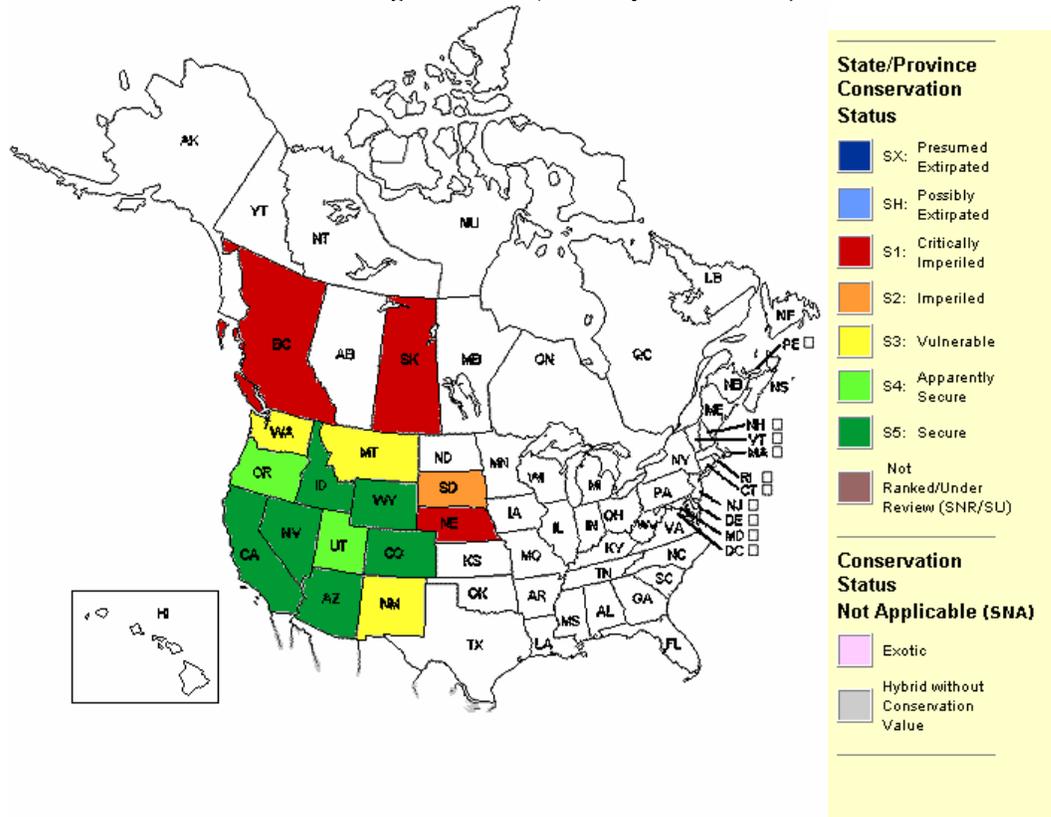
### Trend

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The map below displays the status ranking from the Nature Conservancy database (NatureServe Explorer). The sage thrasher in Utah has been ranked as “apparently secure”.

**Sage Thrasher (*Oreoscoptes montanus*)**



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