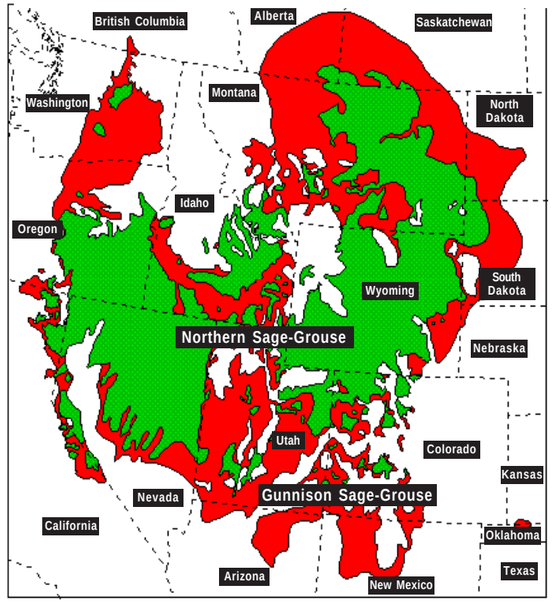
Bellwether of the Sagebrush Sea

In the chilly weeks of April, sage-grouse perform their annual mating rituals, dancing and calling in the frosty dawn on traditional breeding areas, or "leks," across the broad sagelands of the West.

Truly a bird of wild and open country, sage-grouse are especially sensitive to habitat degradation. They need vast areas of mature sagebrush for food and shelter, and many move across hundreds of square miles during the year. They also need wetlands and lush native grasses and wildflowers amidst the sage to successfully raise their chicks.

Once enormously abundant, the sage-grouse has disappeared from nearly half its historic range over the past century because of habitat degradation and loss. In response, the states have brought together citizens, conservation groups, landowners and agencies to develop management strategies and plans.



M. Schroeder, WDFW, 2000

Red: *Historic range where Sage-grouse existed 100 years ago, but have now disappeared.*
Green: *Current areas where Sage-grouse still exist.*

NWF Adopt-A-Lek Program

Conservation efforts cannot be successful without information on where sage-grouse occur and in what numbers. In hopes of stemming the decline of this beautiful bird, the National Wildlife Federation created the citizen science **Adopt-A-Lek (AAL)** program to involve volunteers in counting sage-grouse on their spring leks. Lek counts are the standard method used to understand sage-grouse population trends.

AAL volunteers have been surveying sage-grouse leks in southwestern Montana since 2000 and in Wyoming and Nevada since 2001. We work closely with biologists from state and federal agencies to coordinate our surveys. The data from the program helps biologists determine sage-grouse distribution, track changes in sage-grouse populations, and gauge the effectiveness of conservation efforts. In turn, our volunteers become effective citizen advocates for sage-grouse and sagebrush-steppe habitats.

AAL has been featured in National Public Radio's *Living on Earth*, area newspapers, Montana magazine, and National Wildlife magazine. We now hope to expand the program's efforts in the coming seasons.

Getting Out the Count

In 2004, we recruited and trained 91 volunteers in Montana and Wyoming, increasing our 2003 effort. Volunteers surveyed known breeding leks and also searched for grouse around historic lek sites and areas with suspected lek activity. Despite spring snow, rain, cold and roads that often turned into muddy quagmires, our 2004 volunteers devoted a total of 2,465 hours of their time and drove 34,524 miles to count more than 151 active and historic leks — a hugely successful season! Volunteers were able to get replicate counts on 58% of our leks, increasing the reliability of the data. Volunteers also discovered 4 *new* leks – leks that were either previously unknown, or had been suspected and are now confirmed.

Volunteers view leks from vehicles, blinds, and on foot.

2004 AAL Accomplishments

	# Leks & search areas	# New leks found	# Active leks	# Sites Inactive
Montana	96	4	38	28
Wyoming	55	0	30	21
Total	**151**	**4**	**68**	**49**

Looking at Trends

Even though we found new leks, our searches revealed that many historic leks are now probably inactive, and overall grouse numbers remain depressed. All of this information is important to land management and conservation planning. With each season, AAL builds on long-term lek count data, which helps us understand regional and local grouse trends. Some leks now have several years or decades of counts, offering us a vivid picture of grouse status in these areas.

In southwestern Montana, for example, leks that have been consistently monitored over many years illustrate a decline in grouse numbers. Although only a few leks have consistent counts over the long-term, none show long-term upward or stable trends, and many leks have disappeared altogether.

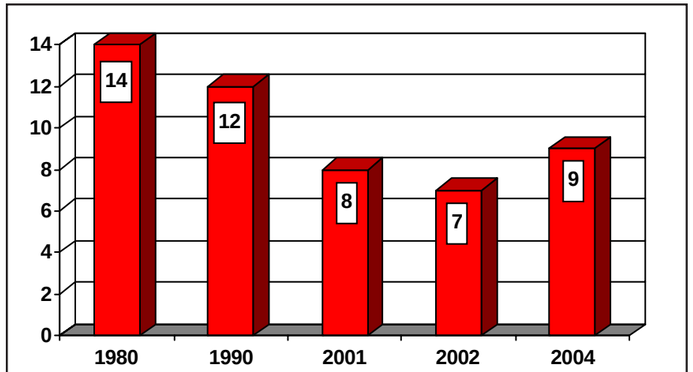


Fig. 1. *Number of leks in Beaverhead County, Montana, with more than 20 males displaying.*

Grasshopper Creek Base Camp.

Looking Into the Future

Expand Monitoring

We hope to build AAL into a network of grassroots volunteers throughout the range of the sage-grouse. AAL needs to continue as an annual monitoring effort to build an understanding of local and regional changes in grouse status to inform resource managers with data relevant to land management and conservation. We expect to return each year to areas currently surveyed in Montana, Wyoming and Nevada. We also hope to extend the program into new areas where strategic opportunities present themselves. For example, in 2004 the Bureau of Land Management supported launching an AAL effort in southeastern Montana in areas slated for coal bed methane development, and we also have promising expansion prospects in eastern Oregon and Utah.

Habitat Improvement on the Ground

In many places one of the limiting factors for grouse is a lack of high-quality grasses and leafy plants in brood-rearing habitats. If we are successful raising funds, in 2005 NWF will test an economic incentives program that would allow ranchers to partner with agencies and conservationists on habitat enhancement projects. We will use AAL data and site visits by experts to pinpoint areas for habitat improvement on private and public lands. We hope to recreate high-quality nesting and brood habitat in areas that can show measurable benefits to grouse within just a few years. AAL volunteers will be used to document grouse population and habitat changes.

Making It Happen

We are at a turning point in size and effort, and will need to raise steady funding to continue AAL as an annual program. To expand the population monitoring efforts and to launch an incentives-based habitat improvement program, we hope to raise funds from a variety of sources.

Your donation would be greatly welcomed. Please consider joining the NWF and our partners in making a real difference for sage-grouse.

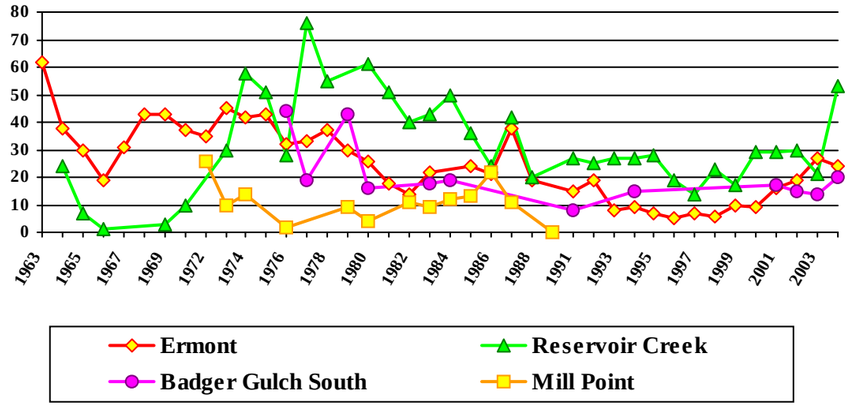


Fig. 2. *Maximum number of males counted in April each year on selected leks in the Bannack area, Montana, 1963-2004.*

Your Donations Will Support

- Putting volunteers afield to count sage-grouse and monitor habitat conditions.
- Buying/renting trailers, optics, computer software, global positioning systems, tapes, cameras, maps and other field equipment.
- Partnerships between landowners, conservationists and other sage-grouse experts for on-the-ground habitat improvements and monitoring.
- Grazing management incentives to build a positive economic environment for grouse conservation.

Adopt-A-Lek Wishlist

- Spotting scopes
- Binoculars
- Digital cameras
- Two-way radios
- Camouflage blinds
- Camper trailers
- Tents
- Camouflage field clothing
- Video production
- Other camping equipment

PARTNERSHIPS

Adopt-A-Lek is not possible without our many funders and cooperators who offer support through donations, grants, goods, and services.

AFFILIATES
Nevada Wildlife Federation
Wyoming Wildlife Federation
Big Sky Upland Bird Association

GOVERNMENT AGENCIES
Bureau of Land Management
MT Dept. Fish, Wildlife & Parks
NV Division of Wildlife
WY Game & Fish Dept.
University of Montana, Missoula
US Fish & Wildlife Service
US Forest Service

FOUNDATIONS
Brainerd Foundation
Bullitt Foundation
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Join The Adopt-A-Lek Program

National Wildlife Federation
SAGE GROUSE CONSERVATION TEAM
"Do the Sage-Steppe!"

Using Citizen Science to Monitor Sage-Grouse Populations and Habitats

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National Fish and Wildlife Foundation

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