



# SAGE SENSE

January 2005

Volume 3, Issue 1

## INTRODUCTION

**Dwight Bunnell**

Hopefully you have been so busy with fall activities and sage-grouse conservation work that you haven't noticed that it has been longer than usual since the last issue of *Sage Sense*. On the other hand, hopefully you have been watching for this issue.

As you are aware, the USFWS recently announced their 12 Month Finding for greater sage-grouse: finding that greater sage-grouse do not need protection at this time under the Endangered Species Act. That is the decision that was expected, dreaded, or prayed for depending on your point of view. Regardless of one's view of the 12-month finding, one thing is clear-We are just beginning the long and difficult process of preserving, enhancing and re-establishing sage-grouse habitats and populations. The official finding, the news releases associated with the finding and the Q and A information concerning the finding all acknowledge the importance of coordinated, interstate, interagency and especially, local sage-grouse and sagebrush conservation efforts. Take time to read the finding and associated information so you can understand the factors that were important in the decision. The finding also outlines the many challenges facing sage-grouse and their habitats.

During their Mid-Winter Meeting, The Western Association of Fish and Wildlife Agencies (WAFWA) re-affirmed their commitment to sage-grouse conservation efforts by launching directly into preparation of Phase II of the Conservation Assessment: The Conservation Strategy. The text of the business meeting motion passed by WAFWA is included at the end of the introduction.

Other important happenings include: The BLM published their National Sage-grouse Habitat Conservation Strategy in November further demonstrating the agencies commitment to long-term sagebrush conservation; 2004 was not a good year for mosquitoes and yet West Nile Virus continued to spread and to cause sage-grouse mortalities; and states and Local Working Groups continue to move forward with sage-grouse and sagebrush planning and project implementation.

Joe Bohne of the Wyoming Game and Fish Department passed the chairmanship of the Sage Grouse Conservation Planning Framework Team to Tony Apa from the Colorado Division of Wildlife. Other state representatives on the team are Scott Gardener from California Department of Fish and Game and Mike Schroeder from the Washington Department of Fish and Wildlife. Mark Hilliard (BLM), Clint McCarthy (USFS), and Pat Deibert (USFWS) continue to represent the federal agencies on the team.

The team hopes you will be better informed after reading Sage Sense. Your comments and suggestions for future issues are welcome. Please send comments to [dwrightbunnell@earthlink.net](mailto:dwrightbunnell@earthlink.net) or call at 801-910-0215.

Motion presented by Terry Crawforth in support of continuing the Western Association of Fish and Wildlife Agencies (WAFWA) sage-grouse conservation process; seconded by Bruce McCloskey and passed unanimously at the WAFWA mid-winter business meeting, January 8, 2005, in San Diego, California.

WAFWA:

- Affirms their commitment to deliver Phase II of the Range-Wide Conservation Strategy to FWS by December 31, 2006.
- Authorizes the Sage-grouse Conservation Planning Framework Team to seek funding in WAFWA's name for completing a Conservation Strategy for the Greater Sage-grouse. Actions may include identifying an appropriate National Conservation Need (NCN) and developing a Multi-State Grant proposal; WAFWA is authorized to assess sage-grouse states up to \$4,000 per state.
- Directs the Framework Team to develop and provide a funding plan and conservation strategy process to WAFWA in July 2005.
- Directs the Framework Team to identify options and make recommendations for expanding participation by additional agencies, industry and interested parties, in the development of the conservation strategy, either through the MOU or other means.
- Authorizes the Framework Team to work on renewal of the 2000 interagency sage-grouse conservation MOU with the USFWS, BLM, and USFS, such that renewal can be completed prior to its expiration in August 2005.
- Directs the Team to support further development of Sage-grouse Information Network (SGIN) and to support and assist with the Western Governors Association's Local Working Group Conference (Feb.11&12 in Reno).
- Directs the Framework Team to continue to coordinate with BLM on implementation of the BLM National Sage-grouse Habitat Conservation Strategy, where appropriate, including the development of 1) Grazing Best Management Practices and 2) a Sage-grouse Habitat Assessment Framework, and;
- Authorizes the Framework Team to continue to work with BLM and others in further development of the proposal for a Western Shrub and Grassland Science and Management Information Consortium.
- Recognizes that, due to time constraints, the Framework Team (with concurrence of the president of WAFWA) will begin actual work on and may complete some of the above mentioned work items prior to the July 2005 WAFWA meeting.



## **COMMENTARY: From Where I Stand**

### **A Perspective from the 2004 Chair of the National Sage-Grouse Conservation Planning Framework Team**

**Joe Bohne**

The Western Association of Fish and Wildlife Agencies established the Team to work on range-wide sage-grouse conservation planning issues in 2000. The chairmanship rotates among the four state wildlife agency representatives. It was my privilege to serve as Chairman during 2004, which was an extremely eventful year regarding sage-grouse conservation issues. The U.S. Fish and Wildlife Service, responding to three petitions indicated the species was warranted for further consideration for listing under the Endangered Species Act (ESA) in March of 2004. The Team, states and agencies through a group of scientists and wildlife and habitat managers with a great deal of expertise on sage-grouse population biology and rangeland ecology, produced the Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats in June under a contract with the Service. The authors are to be commended for their excellent work. This document is considered by many to be the definitive work on the status of sage-grouse and its habitat. The report indicated sage-grouse populations have undergone a long-term decline at an overall rate of 2.0% per year from 1965-2003 with the average rate of decline greater prior to 1986 and a slower rate from 1986 to 2003. The status of sagebrush ecosystems and the impacts of human development and environmental factors on those habitats and sage-grouse populations were examined. In December 2004 the Service issued a finding on the petitions to list sage-grouse under ESA which reported that the sage-grouse was not warranted for listing as threatened or endangered under the Act. The conservation assessment produce by WAFWA was an important component in the data used by the Service to make that decision. A report on the Service's Finding is contained in this edition of Sage Sense.

The Team and WAFWA concur with the Service's Finding on the petitions to list sage-grouse. At this point in time the greater sage-grouse does not warrant listing under ESA. Where do we go from here? Have we dodged the bullet? Will it be business as usual in the sagebrush sea? We believe there is much to do in the coming months and years. The agenda for the Sage Grouse Team for the coming year is included in this edition. Tony Apa, research biologist from the Colorado Division of Wildlife, is the Chairman of the Team for 2005. By December 2006, under WAFWA's direction, the Team will complete a range-wide sage-grouse conservation strategy as part of the original contract with the Service.

The states are urged to complete state and local planning efforts and begin implementation of those plans in the next two years. From my perspective it is extremely important that factors affecting sage-grouse populations be identified and addressed through the efforts of the states and the local working groups. The ball is in our court and we have a responsibility to complete the planning effort and to make changes in land management to address the impacts from habitat loss, habitat degradation and habitat fragmentation that appear to be the root cause of sage-grouse declines in the last 50 years. This means real changes in management and substantive work on the ground. In my opinion, changes in management philosophy and land management practices are needed for this to occur. The Bureau of Land Management and U.S Forest Service must take the lead in this effort because these agencies control well over 50% of the currently occupied sage-grouse habitat. Current efforts to revise land use plans for these agencies need to address sage-grouse conservation issues. This is particular problematic as we face unprecedented energy development on our western rangelands. Efforts on private lands are clearly important and some incentive-based conservation practices beyond the current programs are needed to address these issues.

Simply put, we cannot continue business as usual, as practiced in our management of western



rangelands and hope to maintain or enhance sage-grouse populations when considered either from a local or range-wide perspective. We have a window of opportunity to address management issues in sagebrush ecosystems. Sage-grouse should be an important component of an ecosystem approach to fixing what is broken, serving as an umbrella species for an array of sagebrush obligate wildlife species that are facing some level of risk. In my judgment, land management practices and actions over the next 10 years will be pivotal in determining whether we can maintain current sage-grouse populations and distribution. It is a question of sustainability of these ecosystems and the various land uses that occur in these landscapes. It is also a question of providing enough resources to adequately manage these ecosystems, including the dependent fish and wildlife species. It is a question of the American society's will to provide good stewardship over these ecosystems and balance resource development with environmental protection. Now is the time to do what is right.

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## **SAGE-GROUSE CONSERVATION PLANNING FRAMEWORK TEAM**

Tony Apa, Colorado Division of Wildlife  
Joe Bohne, Wyoming Game and Fish Department, Chair  
Patricia Deibert, U.S. Fish & Wildlife Service  
Mark Hilliard, Bureau of Land Management, Vice Chair  
Clint McCarthy, U.S. Forest Service  
Michael Schroeder, Washington Dept of Fish & Game  
Scott Gardner, California Dept of Fish & Game  
Terry Crawford, Nevada Department of Wildlife, Director  
Dwight Bunnell, Coordinator  
San Stiver, Wildlife Coordinator

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# RELATIVE RANKING OF THREAT FACTORS FOR THE GREATER SAGE-GROUSE

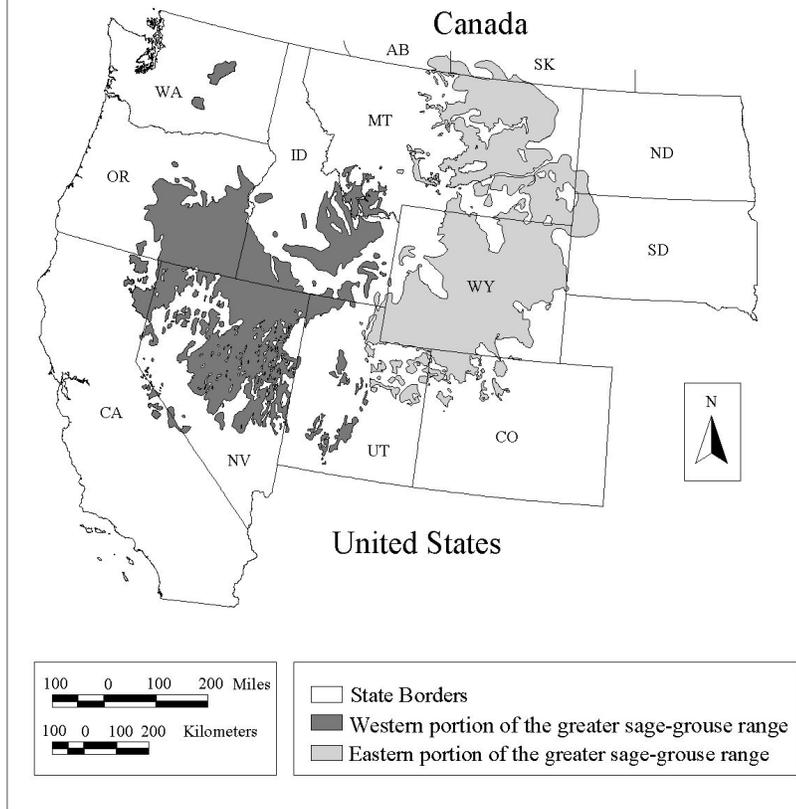
**Patricia Deibert**

On January 12, 2005, the U.S. Fish and Wildlife Service (Service) published a not warranted decision for the greater sage-grouse, meaning that the bird will not be listed as a threatened or endangered species under the Endangered Species Act of 1973, as amended at this time. This decision culminated from review of the scientific literature, unpublished data and other information from other Federal agencies, States, private industry and individuals, and information on all Federal, State, or local conservation efforts currently underway or planned for either the greater sage-grouse or its habitats. The available information was extensive and covered all aspects of the species biology, sagebrush ecosystems, and potential threats to both. Despite the volume of information, substantial gaps and uncertainty remain in the scientific community's knowledge of all the factors that may affect sage-grouse populations across such a wide geographical range encompassing major ecological differences in sagebrush habitats. Further, scientific knowledge of how the species may respond to those factors over time is incomplete. For these reasons, the Service requested input from a panel of scientific experts outside the agency to assist in making a reasonable projection of the species' potential extinction risk. The panel consisted of experts in sage-grouse biology and ecology, sagebrush community ecology, and range ecology and management. The panel's resulting estimates of extinction risks were one tool used by the Service to make their final determination.

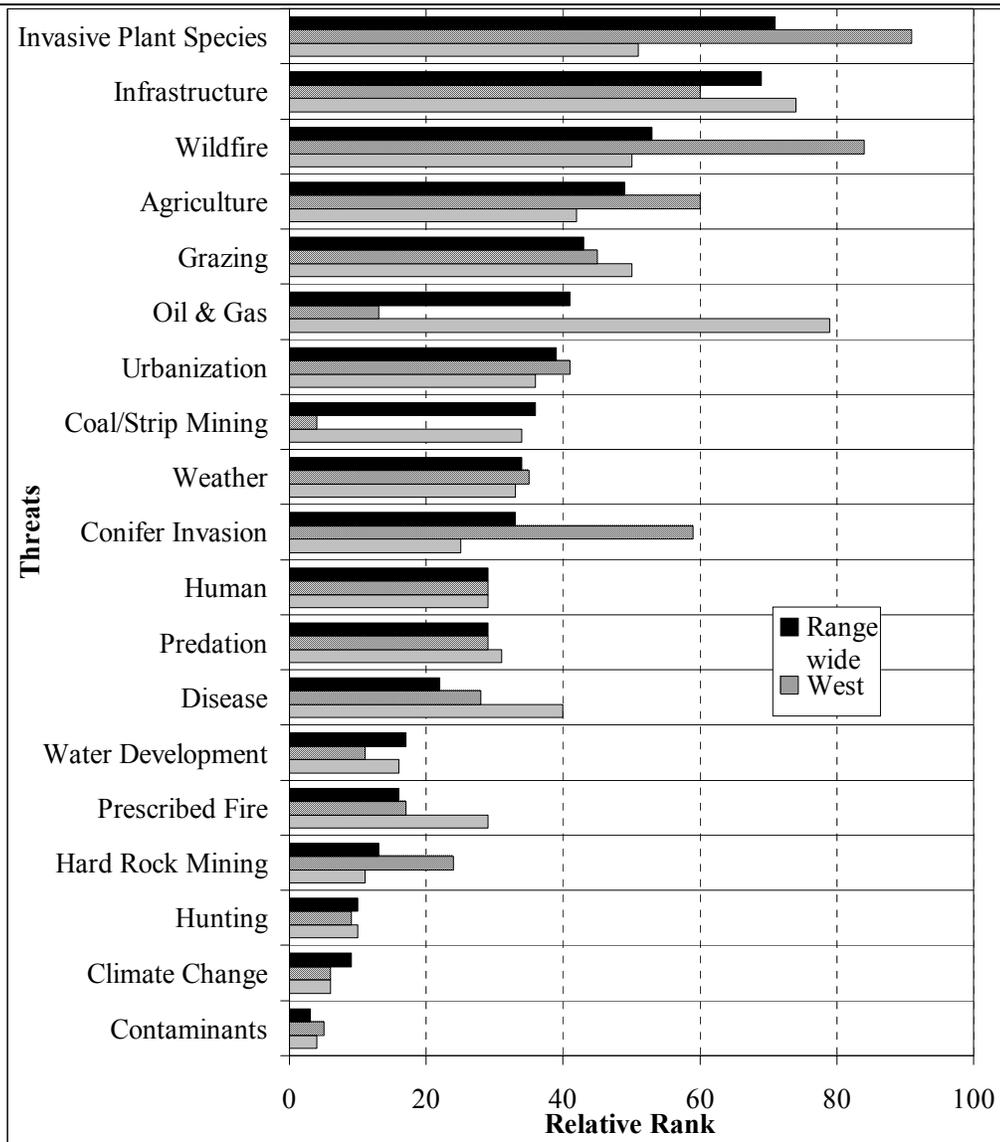


One of the initial exercises in estimating the risk of extinction was to identify threats to the species and its habitat. An initial list of threats was generated from the synthesis of biological information the Service prepared as part of the listing analysis. This list was modified through a discussion among the panelists. To better understand the impact of these threats to the survival of the species, each expert assigned a relative rank to each threat within each of three different geographical areas. These included the eastern and western portion of the range of the greater sage-grouse and the whole range of the species (Figure 1). Dividing the range of the species into an eastern and western region for the purposes of the expert panel exercises was intentional to facilitate understanding of the importance of the various threats to the species at different geographical scales. This geographical separation was only used to assess potential risk factors to the species, and was not based on distinctions between populations of sage-grouse. The separation was used only for purpose of the panel exercise.

Figure 1. Current distribution of greater sage-grouse in North America (AB = Alberta, CA = California, CO = Colorado, ID = Idaho, MT = Montana, ND = North Dakota, NV = Nevada, OR = Oregon, SD = South Dakota, SK = Saskatchewan, UT = Utah, WA = Washington, WY = Wyoming)



The following bar chart is the result of the threat ranking described above. It is being presented here only as a tool to facilitate discussion amongst those involved in conservation planning efforts for sage-grouse and sagebrush ecosystems. While it reflects the opinion of experts in sage-grouse and sagebrush ecology, these rankings were identified at large scales. These rankings are not assumed to be applicable to every location. Therefore it is very important to use local information when planning conservation efforts.



(East Portion of the Range  )

Key:

- Infrastructure includes fences, roads, powerlines, communication towers, and pipelines, developed for any purpose
- Agriculture includes activities primarily associated with farming.
- Grazing includes all activities primarily associated with grazing.
- Weather refers to short time events, including but not limited to late season snowstorms, drought, etc. Climate change refers to long-term, permanent weather changes, usually occurring over a period of 100 years or more.
- Conifer invasion primarily refers to pinyon/juniper
- Human refers to an increased human presence in sagebrush ecosystems from recreational, residential, and resource development activities.

## **Q & A'S – SAGE GROUSE 12-MONTH FINDING**

### **What is the Service's determination regarding the status of the greater sage-grouse?**

After evaluating all the available scientific and commercial information regarding sage-grouse, including an analysis of the threats to sage-grouse and sagebrush habitat, the Service has determined that protection under the Endangered Species Act (ESA) is not warranted.

### **What information did the Service use to make this decision?**

The Service based its final determination on the accumulated scientific data provided by State and Federal agencies and Tribes, as well as data and information provided through commercial and public comments. The review of relevant materials included the Western Association of Fish and Wildlife Agencies' (WAFWA) Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats for all 11 states where the species currently occurs in the U.S. Scientific peer review of the Conservation Assessment was conducted by the Ecological Society of America.

### **Why did the Service conduct a range-wide status review of the greater sage-grouse?**

The Service received three petitions to list the greater sage-grouse as a threatened or endangered species from the American Lands Alliance, the Institute for Wildlife Protection, and Mr. Craig C. Dremann. In April of 2004, the Service completed its review of the petitions and determined that the petitions as well as other information in our files provided substantial biological information indicating that further review of the status of the greater sage-grouse was warranted. The Service then initiated a full status review to determine whether listing of the greater sage-grouse was warranted.

### **What is a status review?**

A status review is an in-depth examination of all the scientific information relating to a species and its habitat.

The Service sought out all available scientific and commercial information on sage-grouse population trends, as well as information on the loss and modification of sagebrush habitat. The purpose of the status review was to determine whether the greater sage-grouse warranted listing as endangered or threatened under the ESA. This differs from a 90-day petition finding, for which we are only required to evaluate the information in the petitions and what is available in our files.

### **How did the Service make this determination?**

The Service used several coordinated teams to compile and review existing data and additional data and information received through public comments. This process included reviewing information on past and on-going activities that influence greater sage-grouse populations and habitat, as well as planned conservation efforts.

The Service employed a structured analysis process to evaluate the threats to the species. Included in this process was the use of an expert panel of independent scientists to discuss and prioritize all the available biological and ecological information. The panelists used their independent expert judgment to estimate the extinction risk for greater sage-grouse by analyzing the resilience and vulnerability of the species to changing environmental conditions. The panel included experts in greater sage-grouse,

plant ecology, rangeland health, and invasive species.

### **How did the Service determine the extinction risk for greater sage-grouse?**

After a facilitated discussion on the biology and ecology of sage-grouse and the sagebrush ecosystem, the expert panel members were asked to independently apply their judgment to estimate the extinction risk for greater sage-grouse at various timeframes into the future. These exercises and discussions occurred in the presence of the team of Service senior-level biologists to help inform the status review decision.

Using all the available scientific data relating to greater sage-grouse as well as the discussion with the expert panel, the Service determined that greater sage-grouse are not likely to become endangered or go extinct in the foreseeable future. "Foreseeable future" is defined in this case as 30 to 100 years using a formula that incorporates 10 sage-grouse generations (approximately 30 to 50 years) and two sagebrush ecosystem restoration cycles (approximately 60 to 100 years).

### **Has the Service used the structured decision process for other species?**

Yes. The structured decision process employed in this instance has been used with work on the slickspot pepper grass, the North Charlotte goshawk, the Archipelago gray wolf, and the five-year status reviews for the marbled murrelet and northern spotted owl.

### **Who served on the expert panel?**

The panel included scientists from Federal and state agencies and several State universities who are experts in greater sage-grouse, plant ecology, rangeland health, and invasive species who were asked to apply their expert judgment to independently estimate the extinction risk for greater sage-grouse at various timeframes into the future.

### **Since the status of greater sage-grouse does not warrant protection under the Endangered Species Act, does that mean that there is no concern about the species' future?**

No. Under the Endangered Species Act, for a species to be listed it must be endangered (in danger of extinction within all or a significant portion of its range) or threatened (likely to become endangered within the foreseeable future). At this time, the status of sage-grouse does not meet either standard. However, the scientific data directs attention to the continuing need to conserve greater sage-grouse and sagebrush habitat on a long-term basis. Federal and state agencies and private landowners recognized this need several years ago and instituted conservation efforts that continue to be planned and implemented today.

### **What are the primary threats to greater sage-grouse?**

Threats to the sagebrush ecosystem vary across the expanse of this habitat type. Generally, however, conservation efforts should be focused on the most important threats such as: control of invasive species, proper management of oil and gas development, and careful planning of infrastructure development (e.g. power lines, roads, fences, etc.) in order to minimize the loss of sagebrush habitat.

### **How many sage-grouse are there?**

Current estimates range from approximately 100,000 to 500,000 individuals. Sage-grouse populations declined an average of 3.5 percent per year from 1965 to 1985. Since 1986, however, populations in several States have generally stabilized or even increased in recent years and the range-wide rate of decline slowed to an average of 0.37 percent per year from 1986 to 2003.

### **What is a greater sage-grouse and where do they live?**

Greater sage-grouse are large, rounded-winged, ground-dwelling birds, up to 30 inches long and two

feet tall, weighing from two to seven pounds. They have a long pointed tail with legs feathered to the base of the toes. Females are a mottled brown, black, and white color. Males are larger and have a large white ruff around their neck and bright yellow air sacks on their breasts, which they inflate during their mating displays. They are found in 11 States: Washington, Oregon, California, Nevada, Utah, Colorado, Idaho, Montana, North Dakota, South Dakota, and Wyoming. Small populations are also found in the Canadian provinces of Alberta and Saskatchewan.

### **How much sagebrush habitat is there?**

Current sagebrush habitat is estimated at approximately 160 million acres – about half of historic acreage.

### **Is the Greater Sage Grouse the only wildlife dependent upon sagebrush habitats?**

No. In fact, the following wildlife species are either partially or entirely dependent upon sagebrush habitat: Pronghorn Antelope (also benefits from grassland habitats), the Sage Thrasher, the Gunnison Sage-Grouse (different species--in UT and western CO), the Pygmy Rabbit (petition finding pending), the Sage Sparrow (obligate), the Brewer's Sparrow, Ferruginous hawks, the Loggerhead Shrike, and the White-Tailed Prairie Dog.

### **What is being done to conserve greater sage-grouse?**

Concern about long-term declines in greater sage-grouse populations has prompted western State wildlife agencies and Federal agencies such as the Bureau of Land Management, U.S. Forest Service, and U.S. Fish and Wildlife Service to engage in a variety of cooperative efforts aimed at conserving and managing sagebrush habitat for the benefit of greater sage-grouse and other sagebrush-dependent species.

Beginning in 1998, the Western Association of Fish and Wildlife Agencies (WAFWA), FWS and BLM formed a cooperative relationship to identify and implement conservation strategies throughout the range. This effort led to the WAFWA Conservation Assessment of Greater Sage-Grouse and Sagebrush Habitats, a compilation of sage-grouse and sagebrush literature and data.

Western States that include portions of the current range of sage-grouse are developing conservation plans to address issues such as habitat loss, fragmentation, and degradation, and to identify opportunities for habitat restoration and enhancement. The goal is to find and implement local solutions for sage-grouse conservation.

Since 2001 the Service has provided Utah with \$2.4 million and Washington with \$730,000 for the restoration of sagebrush habitat. Through its Landowner Incentive Program, the Service also provided \$1.4 million to Montana to improve the management of sagebrush habitat on private lands there.

The Shoshone and Arapaho tribes, on the Wind River Reservation in Wyoming, will use part of a recently awarded \$190,000 Tribal Wildlife Grant to monitor sage-grouse populations, develop a management plan for the grouse and its habitat, and enhance the sagebrush ecosystem.

BLM has produced the final version of an interim national strategy outlining additional steps it will take to maintain, enhance and restore sage-grouse habitat on America's public lands. The strategy will guide BLM field offices until state and local sage-grouse conservation plans, developed in collaboration with state wildlife experts, are completed and made part of BLM land-use plans.

## **BLM ANNOUNCES NATIONAL STRATEGY FOR CONSERVING SAGE-GROUSE ON PUBLIC LANDS**

For more information you can go to <http://www.blm.gov/nhp/spotlight/sage-grouse/>

BLM National Sage-Grouse Habitat Conservation Strategy

Other information from the BLM on Sage-Grouse

The Bureau of Land Management's National Sage-grouse Habitat Conservation Strategy (PDF) establishes a comprehensive approach to the management of sage-grouse habitat on public lands.

The Strategy is one prong of BLM's three-pronged approach to sage-grouse/sagebrush habitat conservation. The first prong – BLM's 30 years of success in sagebrush conservation – forms the foundation for the second prong, the National Strategy. These in turn will be incorporated into and extended by the third prong – the development of conservation plans for local and regional levels that turn the agency's broad knowledge and experience into further action.

The approach outlined in the National Strategy uses sound science, draws on BLM's 30 years of experience and success, and reinforces the importance of working in cooperation with States to direct the Bureau's future efforts to maintain and improve the condition of sagebrush habitats at the regional and local levels across the West.

The multiple-use mission of the Bureau of Land Management is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations. The Bureau accomplishes this by conserving natural, historical, cultural and other resources on the public lands while managing such activities as outdoor recreation, livestock grazing, mineral development, energy production, and various other uses.

One of the most important current programs is the management and conservation of sagebrush landscapes and sage-grouse habitat in 11 Western states. The BLM believes this is a project that requires everyone to work together to find not just one solution, but many solutions, to achieve success. The BLM has worked with many dedicated partners in federal and state agencies, local communities and private citizens to develop useful documents that

- establish baseline data for existing populations and habitat of the greater sage-grouse,
- explore management possibilities,
- explain management intent and methods for conserving sagebrush and sage-grouse habitat across the West, and
- design and implement on-the-ground projects to conserve and enhance habitat that is vital to the health and well-being of sage-grouse and other species populations that depend on sagebrush for their survival.

# WEST NILE VIRUS IN GREATER SAGE-GROUSE: WHAT MORE HAVE WE LEARNED?

**Dave Naugle – University of Montana**

West Nile virus (WNV) resulted in a 25% decline in survival in 4 populations of radio-marked greater sage-grouse (*Centrocercus urophasianus*) in Alberta, Wyoming, and Montana in 2003 (Naugle et al. 2004). Unexpected impacts of WNV are disturbing because range-wide habitat loss and degradation already threaten populations. In the Powder River Basin of Wyoming and Montana, late-summer survival of sage-grouse was lower at a site with confirmed WNV mortalities (20%) than at two sites without (76%) (Walker et al. 2004). Dramatic declines in male and female lek attendance at the WNV site in spring 2004 indicate that outbreaks threaten some local populations with extirpation. The good news is that the 2004 WNV season was not the “freight train” that many had predicted. The bad news is that despite a “slow” year in 2004, we still had 10 radio-collared sage-grouse from 4 marked populations die of WNV in 2004. Six deaths were from two populations that had been infected in 2003 in the Powder River Basin of Wyoming and Montana, and in northeast Montana near C. M. Russell National Wildlife Refuge. Four deaths were from northwest Colorado and Mono Lake, California, two populations in which WNV mortality was previously unknown. The year 2004 also marked a tremendous monitoring effort by the sage-grouse research community. In total, scientists across the range of sage-grouse used published protocols (Walker et al. 2004) to monitor 12 radio-marked populations. These data show that apparent survival of adult females was lower ( $t = 4.1$ ,  $df = 10$ ,  $P < 0.01$ ) at 4 sites with confirmed WNV mortalities (86%) than at 8 sites without (96%). One plausible yet unfounded explanation for low viremia in 2004 is that putative hosts for WNV (e.g., migratory birds or others) developed immunity to the disease in 2003. Although different species exhibit different immune responses, we know that this was not the case for sage-grouse. After tripling our sample size by testing serum from 362 sage-grouse the evidence remains the same—none have tested positive for antibodies, suggesting that they completely lack resistance. Clearly, more work on host-vector interactions must be conducted to better understand the WNV disease cycle. A second plausible explanation for low viremia in 2004 was the low incidence of competent vectors. Mosquito surveillance data from southeast Alberta show a 4-fold decline in captures of *Culex tarsalis* from 2003 to 2004 and a 30-fold drop in mosquito samples that tested positive for WNV (<1%). We hypothesize that low mosquito numbers were likely due to unseasonably cool weather that was not conducive to mosquito production. Cameron Aldridge (University of Alberta) and I compiled mean monthly temperature data (July - August) for 2003 and 2004 from southeast Alberta and Sheridan, Wyoming, two sites that were impacted by WNV in 2003. Sage-grouse mortalities attributable to WNV in 2003 coincided with temperatures of 22-23°C that were 3°C (5-6°F) above the 100-year average. In contrast, lower incidence of WNV in 2004 corresponded with temperatures of 19-20°C that were 1-2°C (3-4°F) below the 100-year average, an 8-10°F difference between years. Mild temperatures remained well below 21°C in July and August 2004, the threshold temperature below which reproduction in *Culex tarsalis* is greatly reduced (Brust 1991). Cool temperatures that influence vector abundance and that ultimately may influence spread of disease also are reflected in timing of mortality in radio-marked birds. These data show that average date of mortality of radio-marked females was 16 days later ( $t = 3.0$ ,  $df = 24$ ,  $P < 0.01$ ) in 2004 (26 August) than 2003 (10 August). Half of the WNV mortalities from 2004 occurred 1-17 September; thus, we recommend expanding the WNV monitoring season from 1 July – 31 August (Walker et al. 2004) to 1 July – 15 September to account for variability between years. Brett Walker (PhD candidate, University of Montana) is using these and other data to conduct a life-stage sensitivity analysis to evaluate the role of WNV in long-

term population viability. Lastly, I would like to thank the scientists and managers across the range of sage-grouse that monitored radio-marked birds this past year, for without their contribution we could not assemble the bigger picture. The 2005 sage-grouse field season is now upon us, we shall see what it brings.

Brust, R. A. 1991. Environmental regulation of autogeny in *Culex tarsalis* (Diptera Culicidae) from Manitoba, Canada. *Journal of Medical Entomology* 28:847-853.

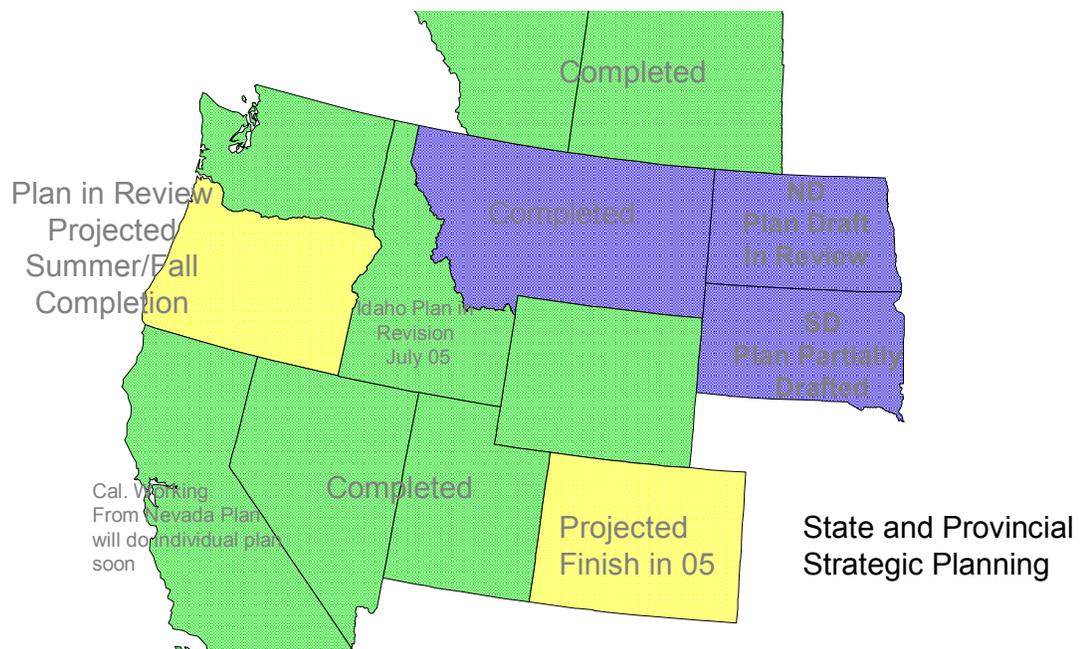
Naugle, D. E., C. L. Aldridge, B. L. Walker, T. E. Cornish, B. J. Moynahan, M. J.

Holloran, K. Brown, G. D. Johnson, E. T. Schmidtman, R. T. Mayer, C. Y. Kato, M. R. Matchett, T. J. Christiansen, W. E. Cook, T. Creekmore, R. D. Falise, E. T. Rinkes, and M. S. Boyce. 2004. West Nile virus: Pending crisis for Greater Sage-Grouse. *Ecology Letters* 7:704-713.

Walker, B. L., D. E. Naugle, K. E. Doherty, and T. E. Cornish. 2004. From the Field:

Outbreak of West Nile virus in greater sage-grouse and guidelines for monitoring, handling, and submitting dead birds. *Wildlife Society Bulletin* 32:1000-1006.

## What is our Progress to date? State/Provincial Plans



## Local Working Group Status

State	LWG	Status
California	Complete, 2 new groups.	3 Groups implementing.
Colorado	Local plans complete.	Implementation
Idaho	All Scheduled for June 30, 2005 completion.	
Montana	3 groups meeting. MFWP to evaluate progress in Feb. Some projects in implementation.	
Nevada	Complete	Implementation
North Dakota	State plan is in review.	
Oregon	State plan is in review.	
South Dakota	State plan is in draft.	
Utah	Groups are meeting.	Some projects in implementation
Washington	Recovery plan complete	Implementation
Wyoming	All groups meeting	Beginning Year 2 of 3



**Summary of Sage-Grouse Petitions Submitted to the U.S. Fish and Wildlife Service (USFWS)<sup>1</sup>**  
(as of January 27, 2005)

<b>Petition Date:</b> May 14, 1999 (74 pages)	<b>Petition Date:</b> January 25, 2000 (254 pages)	<b>Petition Date:</b> December 28, 2001 (493 pages)
<b>Species:</b> Washington population of the Western Sage-Grouse <i>Centrocercus urophasianus phaios</i>	<b>Species:</b> Gunnison Sage-Grouse <i>Centrocercus minimus</i>	<b>Species:</b> Mono Basin population of the Greater Sage-Grouse <i>Centrocercus urophasianus phaios</i>
<b>Petition Request:</b> List as threatened or endangered	<b>Petition Request:</b> List as endangered or threatened, emergency listing, and designation of critical habitat	<b>Petition Request:</b> Emergency list as endangered
<b>Petitioners:</b> Northwest Ecosystem Alliance and Biodiversity Legal Foundation	<b>Petitioners:</b> Mark Salvo, American Lands Alliance, Dr. Randy Webb, Net Work Associates, Andy Kerr, The Larch Company, Jasper Carlton, Biodiversity Legal Foundation, Susan Ash, Wild Utah Forest Campaign, Rob Edwards, Sinapu	<b>Petitioners:</b> Donald Randy Webb, Institute for Wildlife Protection
<b>USFWS Determination:</b> Both a 90-day finding (August 24, 2000) and a 12-month finding (May 7, 2001) have been published in the <u>Federal Register</u> . The outcome of USFWS finding was that listing is warranted but precluded for the Columbia Basin Distinct Population Segment (occurs in WA and northern OR). Under USFWS policy it became a candidate by default. The candidate status of this population to be reassessed by USFWS in 2005 using new information, including that present in the USFWS finding published in the <u>Federal Register</u> on January 12, 2005.	<b>USFWS Determination:</b> Note this species was designated candidate by USFWS prior to receipt of the petition. The priority number was elevated by USFWS in a May 4, 2004 <u>Federal Register</u> Notice of Review to a 2. However the USFWS does not believe that emergency listing is warranted at this time.	<b>USFWS Determination:</b> Initial review indicated that the situation does not warrant an emergency listing. A 90-day finding was initiated August 1, 2002. The 90-day finding was published in the <u>Federal Register</u> December 26, 2002 with an outcome that the information presented in the petition is not substantial.
<b>Legal Action:</b> No Notice Of Intent (NOI**) to date	<b>Legal Action:</b> Court complaint dated September 29, 2000 from the American Lands Alliance et al. In summer 2003 the Court rules in the USFWS's favor. The ruling is that the USFWS candidate process, and the determination USFWS that a species should be on the candidate list, is equivalent to a 12-month finding. On March 16, 2004 the plaintiffs file a lawsuit in Washington D.C. District Court asking the Court to order the USFWS to emergency list the species as endangered, and challenging the USFWS's determination of warranted but precluded for the species.	<b>Legal Action:</b> A court complaint dated July 3, 2002 was received from the Institute for Wildlife Protection. On December 1, 2003 U.S. District Court judge issued an order in favor of the USFWS and dismissing the plaintiff's case. On May 24, 2004 the plaintiffs filed an appeal of the Courts decision. USFWS responded with an answer brief on August 6, 2004. A hearing on the appeal is scheduled for Feb. 10, 2005. Also plaintiffs filed an NOI, dated January 9, 2003, regarding the merits of the USFWS's 90-day finding.

<b>Lead USFWS Office:</b> Upper Columbia Fish and Wildlife Office, Spokane, Washington (509) 891-6839	<b>Lead USFWS Office:</b> Western Colorado Field Office, Grand Junction, Colorado (970) 243-2778	<b>Lead USFWS Office:</b> Nevada Fish and Wildlife Office, Reno, Nevada (775) 861-6325
<b>USFWS Contact:</b> Chris Warren	<b>USFWS Contact:</b> Terry Ireland	<b>USFWS Contact:</b> Kevin Kritz
<b>Petition Date:</b> January 24, 2002 (468 pages)	<b>Petition Date:</b> June 18, 2002 (7 pages)	<b>Petition Date:</b> July 3, 2002 (524 pages)
<b>Species:</b> Western subspecies of the Greater Sage-Grouse <i>Centrocercus urophasianus phaios</i>	<b>Species:</b> Greater Sage-Grouse <i>Centrocercus urophasianus</i>	<b>Species:</b> Eastern subspecies of the Greater Sage-Grouse <i>Centrocercus urophasianus urophasianus</i>
<b>Petition Request:</b> List the subspecies	<b>Petition Request:</b> List as endangered	<b>Petition Request:</b> List as endangered
<b>Petitioners:</b> Donald Randy Webb, Institute for Wildlife Protection	<b>Petitioners:</b> Craig Dremann	<b>Petitioners:</b> Donald Randy Webb, Institute for Wildlife Protection
<b>USFWS Determination:</b> A 90-day finding was initiated October 30, 2002. The 90-day finding was published in the <u>Federal Register</u> on February 7, 2003 with an outcome that the information presented in the petition is not substantial.	<b>USFWS Determination:</b> A 90-day finding was initiated December, 2003. The USFWS published the 90-day finding in the <u>Federal Register</u> on April 21, 2004. The outcome was a positive 90-day finding; the information presented, and in USFWS files, was substantial. USFWS initiates a status review. The status review has now been completed. A 12-month finding was published in the Federal Register January 12, 2005 with an outcome that listing of the greater sage-grouse is not warranted.	<b>USFWS Determination:</b> 90-day finding initiated on October 3, 2003 as per court order. The 90-day finding was published in the <u>Federal Register</u> on January 7, 2004 with an outcome that the information presented in the petition is not substantial.
<b>Legal Action:</b> NOI dated February 7, 2003 from the Institute for Wildlife Protection regarding the 90-day finding. The Institute for Wildlife Protection filed a court complaint, dated June 6, 2003 challenging the merits of the 90-day finding. On August 10, 2004 a U.S. District Court judge issued an order in favor of the USFWS and dismissing the plaintiff's case. An appeal, dated November 24, 2004, has been filed by The Institute for Wildlife Protection regarding this decision.	<b>Legal Action:</b> NOI dated January 7, 2005 from the Institute for Wildlife Protection regarding the 12-month finding. NOI alleges that USFWS 12-month finding is incorrect, arbitrary, unwarranted by the facts, etc.	<b>Legal Action:</b> Court complaint dated January 10, 2003 filed in the Western District Court of Washington by the Institute for Wildlife Protection for failure to do a 90-day finding. On October 3, 2003 the District Court judge ordered the USFWS to make a 90-day finding, due by January 3, 2004. On September 28, 2004 the U.S. District Court judge issued an order in favor of the USFWS and dismissing the plaintiff's case.
<b>Lead USFWS Office:</b> Oregon Fish and Wildlife Office, Portland, Oregon (503) 231-6179	<b>Lead USFWS Office:</b> Wyoming Ecological Services Field Office, Cheyenne, Wyoming (307) 772-2374	<b>Lead USFWS Office:</b> Wyoming Ecological Services Field Office, Cheyenne, Wyoming (307) 772-2374
<b>USFWS Contact:</b> Jeff Dillon	<b>USFWS Contact:</b> Pat Deibert	<b>USFWS Contact:</b> Pat Deibert

<b>Petition Date:</b> March 19, 2003 (992 pages; this is a combination of the previous petitions for Western and Eastern subspecies)	<b>Petition Date:</b> December 22, 2003 (218 pages)	
<b>Species:</b> Greater Sage-Grouse <i>Centrocercus urophasianus</i>	<b>Species:</b> Greater Sage-Grouse <i>Centrocercus urophasianus</i>	
<b>Petition Request:</b> List as endangered	<b>Petition Request:</b> List as threatened or endangered	
<b>Petitioners:</b> Donald Randy Webb, Institute for Wildlife Protection	<b>Petitioners:</b> Mark Salvo American Lands Alliance, Biodiversity Conservation Alliance, Center for Biological Diversity, Forest Guardians, The Fund for Animals, Gallatin Wildlife Association, Great Old Broads for Wilderness, Hells Canyon Preservation Council, The Larch Company, Northwest Ecosystem Alliance, Northwest Council for Alternatives to Pesticides, Oregon Natural Desert Association, Oregon Natural Resources Council, Predator Defense Institute, Sierra Club, Sinapu, Western Fire Ecology Center, Western Watersheds Project, Wild Utah Project, Wildlands CPR, and Center for Native Ecosystems	
<b>USFWS Determination:</b> A 90-day finding was initiated December, 2003. USFWS published the 90-day finding in the <u>Federal Register</u> on April 21, 2004. Outcome was a positive 90-day finding; the information presented, and in USFWS files, was substantial. USFWS initiates a status review. The status review has now been completed. A 12-month finding was published in the Federal Register January 12, 2005 with an outcome that listing of the greater sage-grouse is not warranted.	<b>USFWS Determination:</b> A 90-day finding was initiated December, 2003. USFWS published the 90-day finding in the <u>Federal Register</u> on April 21, 2004. The outcome was a positive 90-day finding; the information presented, and in USFWS files, was substantial. USFWS initiates a status review. The status review has now completed. A 12-month finding was published in the Federal Register January 12, 2005 with an outcome that listing of the greater sage-grouse is not warranted.	
<b>Legal Action:</b> NOI dated January 7, 2005 from the Institute for Wildlife Protection regarding the 12-month finding. NOI alleges that USFWS 12-month finding is incorrect, arbitrary, unwarranted by the facts, etc.	<b>Legal Action:</b> NOI dated January 7, 2005 from the Institute for Wildlife Protection regarding the 12-month finding. NOI alleges that USFWS 12-month finding is incorrect, arbitrary, unwarranted by the facts, etc.	
<b>Lead USFWS Office:</b> Wyoming Ecological Services Field Office, Cheyenne, Wyoming (307) 772-2374	<b>Lead USFWS Office:</b> Wyoming Ecological Services Field Office, Cheyenne, Wyoming (307) 772-2374	
<b>USFWS Contact:</b> Pat Deibert	<b>USFWS Contact:</b> Pat Deibert	

<sup>1</sup> Table compiled by Kevin Kritz, U.S. Fish and Wildlife Service, Nevada Fish and Wildlife Office, 1340 Financial Blvd. Suite #234, Reno, NV 89502-7147 (775) 861-6300

\*\* 60-day Notice of Intent to Sue (NOI)