

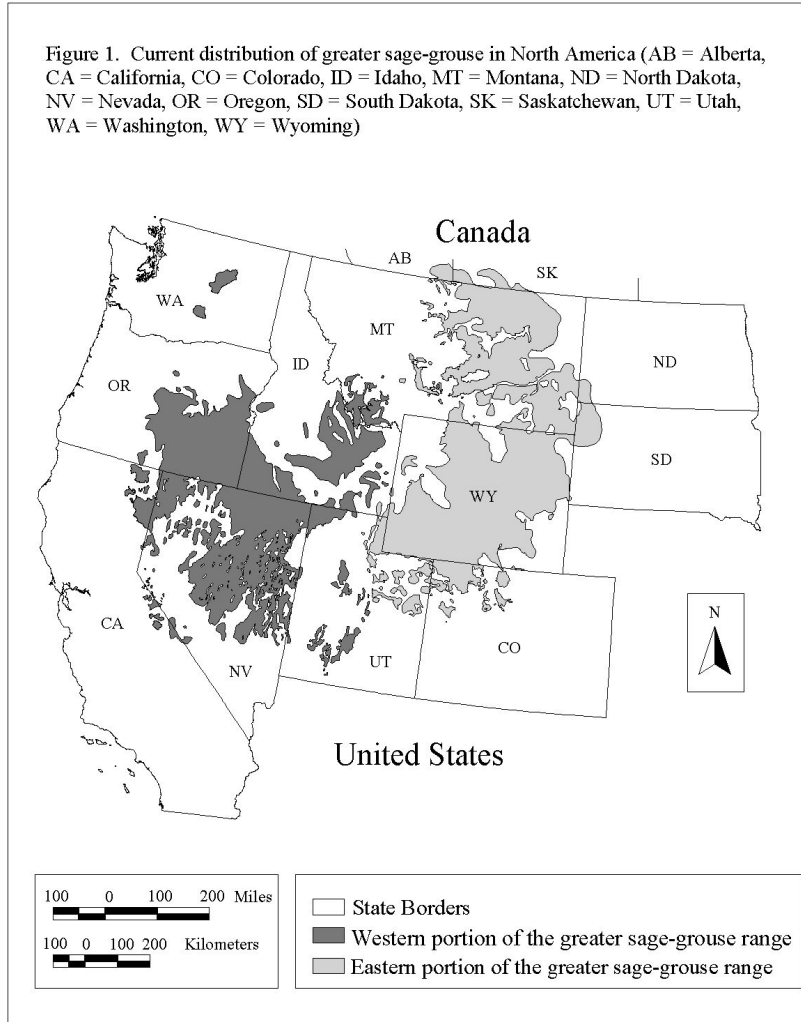
APPENDIX L

THREATS RANKING FOR GrSG

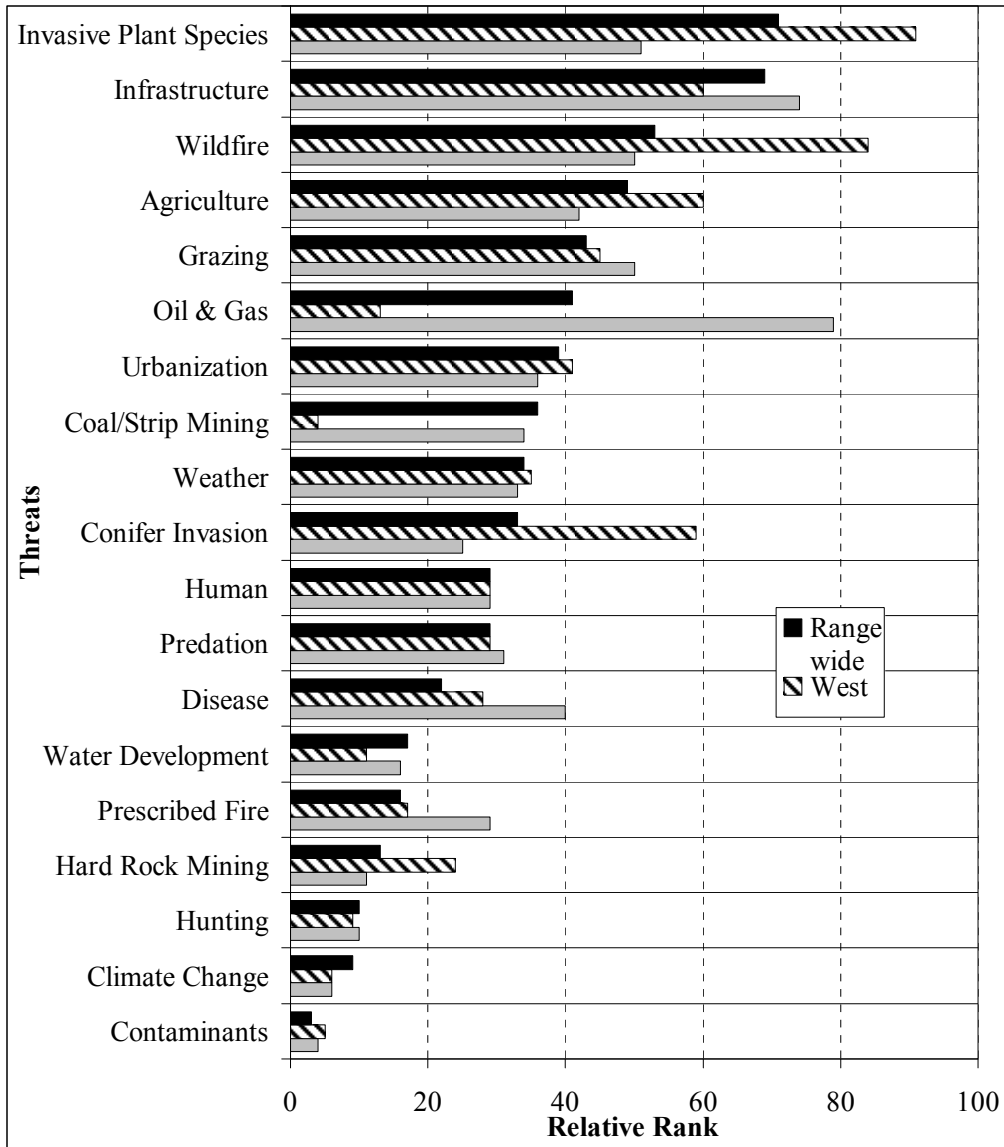
Relative ranking of threat factors for the Greater sage-grouse (Deibert 2005)

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 This decision culminated from review of the scientific literature, unpublished data and other information from other Federal agencies, States, private industry and individuals, and information on all Federal, State, or local conservation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.



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.



Key: ■ = Rangewide ▨ = Western □ = Eastern

- 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 of more.
- Conifer invasion primarily refers to pinyon/juniper
- Human refers to an increased human presences in sagebrush ecosystems from recreational, residential, and resource development activities .