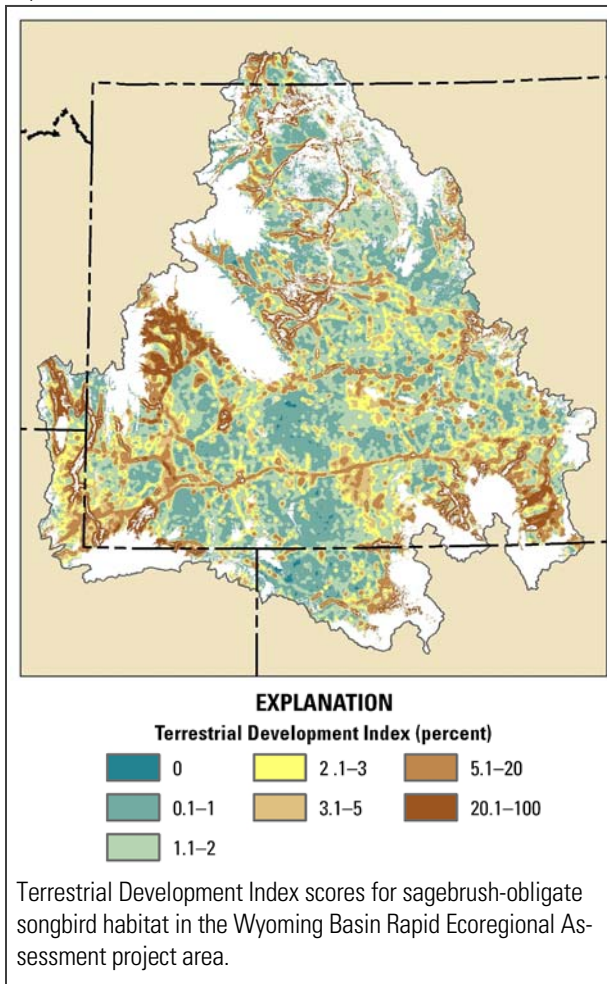


Sagebrush-Obligate Songbirds:

Brewer's Sparrow
Sagebrush Sparrow
Sage Thrasher

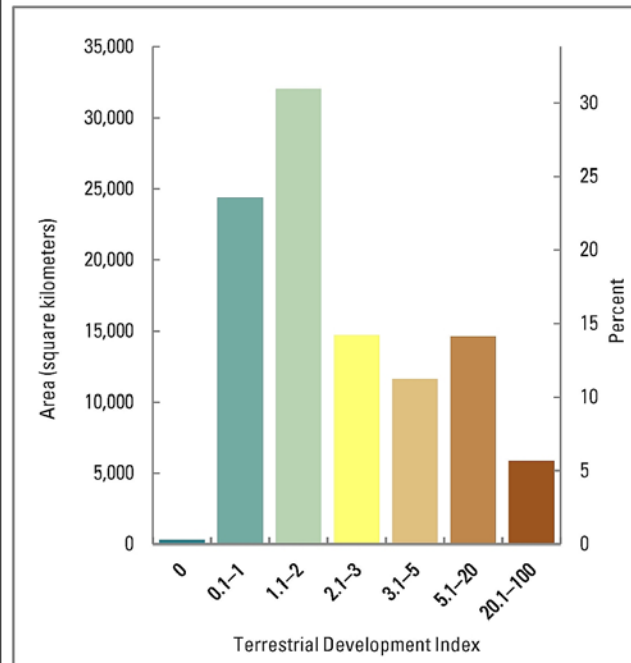


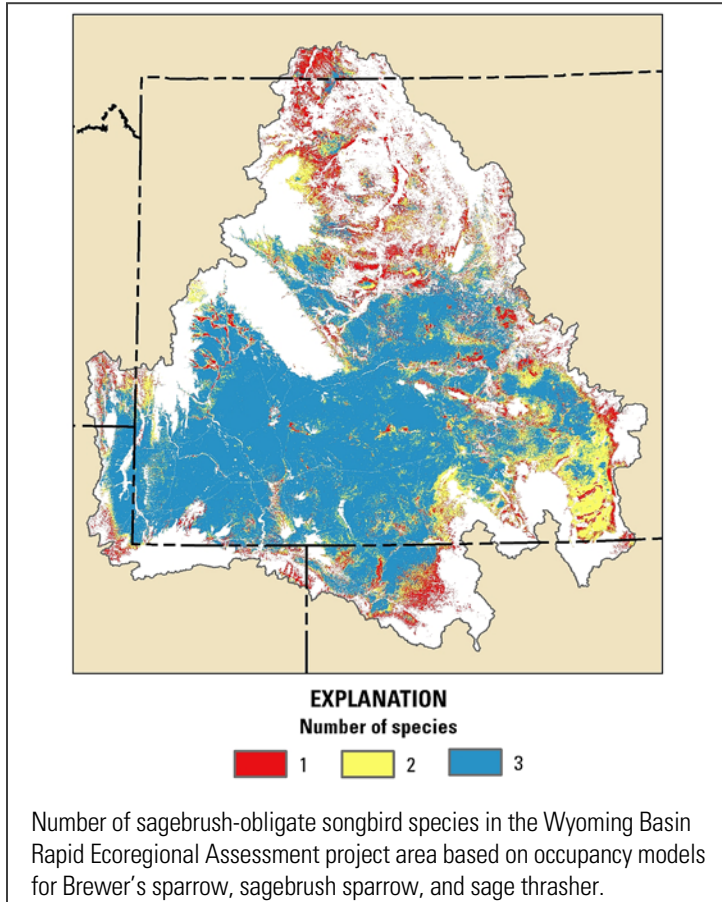
Photo credits: Brewer's sparrow, Elaine R. Wilson, Nature's Pics Online, Creative Commons Attribution-Share Alike 3.0; sagebrush sparrow, Bureau of Land Management; and sage thrasher, ©Dave Showalter.



Management Questions

- Where is baseline sagebrush-obligate songbird (SOS) habitat, and what is the total area? (Top left map following page)
- Where does development pose the greatest threat to baseline sagebrush-obligate songbird habitat, and where are the relatively undeveloped areas? (Left map below)
- How has development fragmented baseline sagebrush-obligate songbird habitat, and where are the large, relatively undeveloped patches?
- How has development affected structural connectivity of sagebrush-obligate songbird habitat relative to baseline conditions?
- Where are potential barriers and corridors that may affect animal movements among relatively undeveloped habitat patches?
- Where have recent fires occurred in sagebrush-obligate songbird habitat, and what is the total area burned per year?
- How does risk from development vary by land ownership for sagebrush-obligate songbird habitat?
- Where are the townships with the greatest landscape-level ecological values? (Top right map following page)
- Where are the townships with the greatest landscape-level risks? (Center right map following page)
- Where are the townships with the greatest conservation potential? (Bottom right map following page)

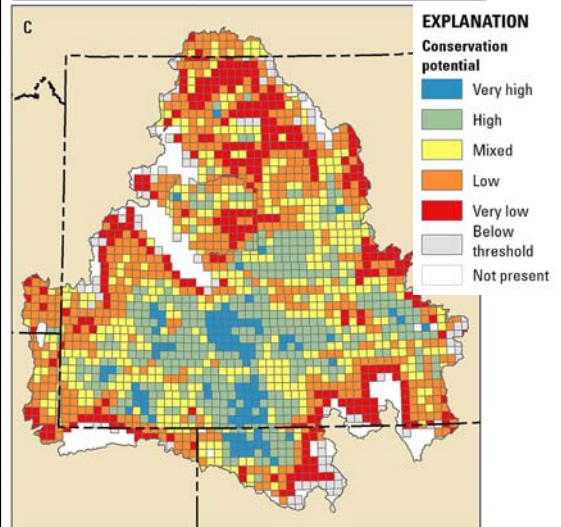
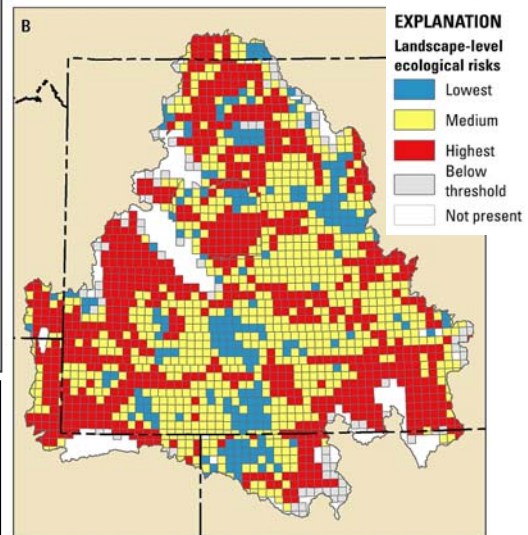
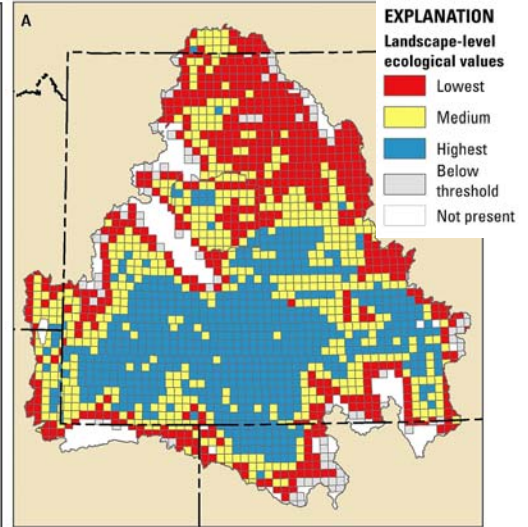




Summary

Total baseline habitat for the three sagebrush-obligate songbird species combined is 103,537 square kilometers (39,976 square miles) or 58 percent of the Wyoming Basin area, and there is a close correspondence in the distributions of sagebrush-obligate songbird species. A total of 23 percent of their habitat is relatively undeveloped, whereas 20 percent has high levels of development (Terrestrial Development Index score >5 percent). Baseline sagebrush-obligate songbird habitat is highly connected, especially in the southern area, but development has effectively fragmented and reduced structural connectivity of their habitat. The largest patches of relatively undeveloped habitat are found northeast and southwest of Rock Springs. Previous research indicates that Brewer's and sagebrush sparrows may be more sensitive to energy development than sage thrasher.

All three species are listed as Species of Greatest Conservation Need in Wyoming due to habitat loss, degradation, and fragmentation. The majority of the modeled sagebrush-obligate songbird habitat in the Basin is managed by the Bureau of Land Management or is on private lands, and risk from development is similar for both types of land. Some of the townships with the highest conservation potential for sagebrush-obligate songbird habitat occur within areas that may function as strongholds for sagebrush shrublands under projections of climate change.



(A) Landscape-level ecological values, (B) ecological risks, and (C) conservation potential of sagebrush-obligate songbird habitat summarized by township.