## Sauger



Artwork credit: Robert W. Hines, U.S. Fish and Wildlife Service.



## **Management Questions**

- Where is baseline sauger habitat, and what is the total area occupied?
- Where does development pose the greatest threat to baseline sauger habitat, and where are the large, relatively undeveloped habitats? (Left map below)
- Where do dams, water diversions, and stream-road crossings pose potential barriers to sauger movements, and where are watersheds with high structural connectivity?
- Where are sauger populations at risk from competition and hybridization with walleye? (Top left map following page)
- Where are sauger populations currently at risk from low summer flows?
- How does risk from development vary by land ownership for sauger habitat?
- Where are the fifth-level watersheds with the greatest landscape-level ecological values? (Top right map following page)
- Where are the fifth-level watersheds with the greatest landscape-level risks? (Center right map following page)
- Where are the fifth-level watersheds with the greatest conservation potential? (Bottom right map following page)





Competition and hybridization risk posed by walleye occurrence in sauger habitat within the Wyoming Basin Rapid Ecoregional Assessment project area.

## Summary

The current range of sauger in the Wyoming Basin is limited to the Bighorn and Wind River drainages. These populations are among the last genetically pure sauger populations in the Missouri River Basin and are a conservation priority. Most sauger populations, however, are at risk for hybridization with walleye due to extensive overlap of the two species distributions within the Wyoming Basin. Walleye pose risks as potential predators, competitors, and disease carriers. Walleye and sauger do not co-occur in the Wind, Little Wind, and the Popo Agie Rivers, so sauger populations here are important for maintaining genetically pure sauger populations, although the isolation from larger populations is a concern.

Development poses significant threats to habitat quality. Most habitat except a small area of the Popo Agie River has moderate to high development levels. The Bighorn and Wind River drainages have high agricultural development, extensive roads, and many water diversions. The Boysen and Yellowtail dams have fragmented the remaining sauger populations, and potential barriers posed by water diversions restrict fish movements. These barriers limit access to spawning habitat, compounding the problems posed by the highly restricted distribution of this species.



(*A*) Landscape-level ecological values, (*B*) ecological risks, and (*C*) conservation potential of sauger summarized by fifth-level watershed.