



Keya Paha landscape

occupies the watershed of the Keya Paha River in Keya Paha and Boyd counties. The watershed is a mosaic of cropland and mixed-grass prairie. The Keya Paha River is a rather narrow river whose flows are unmodified. Meadows, woodlands and cropland occupy its floodplain. Numerous small streams are tributaries to the Keya Paha and their floodplains support large expanses of wet meadows. These streams have significant

assemblages of rare fish species including the pearl dace, finescale dace, northern redbelly dace, and the state-listed blacknose shiner. A population of the federally and state endangered American burying beetle occurs in the landscape. The prairies and meadows support a diversity of butterflies. Currently there are no protected areas within this landscape.



Stresses Affecting Species and Habitats

- ❖ Specific livestock grazing and haying practices that may reduce native plant diversity and promote uniform habitat structure
- ❖ Invasive plants species in meadows, upland prairies and woodlands including eastern red cedar, smooth brome, cheatgrass, Kentucky bluegrass, leafy spurge, Russian olive, and sweet clovers
- ❖ Modification of headwater streams in wet meadows through ditching or channelization
- ❖ Excessive recreational use of river bed (e.g. ATVs)

Conservation Strategies

- ❖ Implement ecologically-sensitive grazing and haying strategies on wet meadows and upland prairies on both private and public lands, in combination with prescribed fire and rest
- ❖ Work with interested landowners to place conservation easements on critical reaches of streams
- ❖ Restore specific key areas of cropland to grassland.
- ❖ Restore the natural hydrology to key wet meadows
- ❖ Install fences to discourage ATV access, install signage with information about the local landscape impacts associated with ATV use, and inform law enforcement of problematic areas
- ❖ For high-quality streams with rare fish populations, replace culverts with bridges

- ❖ Work with wind energy companies to select turbine sites that minimize fragmentation and impacts to native species. Avoid placing wind turbines in native prairies and woodlands and in close proximity to prairie grouse leks and nesting grounds. Turbines can be halted temporarily during peak migration periods for bats and birds. Pre- and post-construction monitoring should be implemented. See Nebraska Game and Parks Commission guidelines for wind energy development.

Collaborative Conservation Opportunities across State Borders

Coordinate with South Dakota conservation organizations to implement projects to improve habitat for at-risk species shared by both states including the burrowing owl, greater prairie chicken, American burying beetle, Iowa skipper, regal fritillary, and blacknose shiner within the NE Keya Paha Watershed BUL and SD Great Plains Steppe Ecoregion (i.e., Tripp and Gregory counties in SD). South Dakota Game, Fish and Parks sponsored a research project through South Dakota State University to examine glacial relict fishes in the spring-fed headwater streams of South Dakota's Sandhills region. Their findings may help in identifying conservation needs. Species lists may be modified as new information becomes available.

Coordinated habitat management actions (e.g., grazing strategies) should mirror medium to high priority conservation goals identified in the South Dakota Comprehensive Wildlife Conservation Plan. Collaborative conservation efforts across state borders should include researchers, federal and non-profit environmental program coordinators, and landowners, particularly those with properties extending over state lines. For example, the Nebraska Grazing Lands Coalition works across borders. Additionally, USDA programs may have goals in common with Natural Legacy. In order to implement Natural Legacy conservation actions beyond state boundaries, it will be necessary to identify and develop staffing and funding sources. Funding that is not specific to any one state will provide more flexibility in project scope.

Tier I At-risk Species

Plants:

Prairie Moonwort⁴

Animals:

Bell's Vireo

Burrowing Owl

Greater Prairie Chicken

Loggerhead Shrike

Bailey's Eastern Woodrat³

American Burying Beetle

Iowa Skipper

Regal Fritillary
Blacknose Shiner⁴
Finescale Dace
Plains Topminnow
Northern Redbelly Dace

Aquatic Communities:

Headwater, Cold Water Stream*
Headwater, Warm Water Stream*
Mid-order, Warm Water River*

Terrestrial Communities:

Cottonwood-Peachleaf Willow Riparian Woodland
Dry Upland Bur Oak Woodland*
Green Ash-Eastern Red Cedar Scarp Woodland
Sandbar Willow Shrubland
Buckbrush Shrubland
Buffaloberry Shrubland
Chokecherry-Plum Shrub Thicket
Freshwater Seep
Northern Cordgrass Wet Prairie*
Cattail Shallow Marsh
Reed Marsh
Eastern Sand Prairie*
Sandhills Dune Prairie
Great Plains Gravel-Cobble Prairie*
Perennial Sandbar
Sandbar/Mudflat

* Priority for conservation in this BUL

¹ This is the only BUL where the species is known to occur

² Known to occur in only one other BUL

³ Known to occur in only two other BULs

⁴ Known to occur in only three other BULs