

## Project Highlight – SD State Wildlife Grant

**Project Type**            Research and monitoring tool testing

**Title**    Evaluation of a decision support tool to help support fish species at risk in South Dakota streams

**In a nutshell**            Aquatic GAP is a tool for predicting where aquatic species might find suitable habitat. This study's goal was to test the accuracy of aquatic GAP by surveying streams and watersheds with historic occurrences of rare fish species and wetlands with potential habitat for them.

### Relevant Species of Greatest Conservation Need

- Northern Redbelly Dace (*Chrosomus eos*)
- Longnose Sucker (*Catostomus catostomus*)
- Central Mudminnow (*Umbra limi*)
- Trout-Perch (*Percopsis omiscomaycus*)
- Banded Killifish (*Fundulus diaphanus*)
- Carmine Shiner (*Notropis percobromus*)
- Finescale Dace (*Chrosomus neogaeus*)
- Sturgeon Chub (*Macrhybopsis gelida*)
- Northern Pearl Dace (*Margariscus nachtriebi*)

**Relevant Habitats**    streams and other aquatic habitats

**Cooperators**            SD Coop. Fish and Wildlife Res. Unit (Dr. Charles Berry, retired)

### Purpose

- Assess the accuracy of models to validate their use as decision support tools
- Increase data on distribution of fish species, particularly 9 species of concern
- Obtain data on the habitat and community associations of 9 species of concern

**Timeframe**    October 2003 – June 2006

**Location**        selected sites statewide

### Summary or Important Findings

- Fish were collected at 143 sites. The Northern Redbelly Dace model had the most agreement with field data; model agreement for other target species was moderate or fair.
- For species with high model agreement, conservation practices can be targeted to areas where these species are likely to occur.

**Best contact person**                    Chelsey Pasbrig, SDGFP

### More Information

Hayer, C., S. S. Wall, and C. R. Berry, Jr. 2006. Evaluation of aquatic gap analysis fish distribution models, with emphasis on rare fish species in South Dakota. Final Report to SDGFP.