

## Project Highlight – SD State Wildlife Grant

**Project Type**            Research

**Title**    Black-backed and Lewis's woodpecker reproduction following fire and salvage logging activities

**In a nutshell**            Black-backed and Lewis's woodpeckers respond positively to fires, which create snags needed for nesting habitat. This study was conducted to determine habitat preferences and reproductive activities of rare woodpeckers following the Jasper Fire of August 2000.

### **Relevant Species of Greatest Conservation Need**

- Black-backed Woodpecker (*Picoides arcticus*)
- Lewis's Woodpecker (*Melanerpes lewis*)

**Relevant Habitats**    forest habitats of Black Hills

**Cooperators**            SD Dakota School of Mines and Technology (Dr. Kerri Vierling)

**Purpose**            This study was conducted to determine how habitat components, including fire impacts and salvage logging, influenced reproductive activities of rare woodpeckers within the Jasper Fire area. Black-backed Woodpeckers typically inhabit young burns without salvage logging. Lewis's Woodpeckers generally colonize older burns, but may inhabit younger burns with salvage logging.

**Location**            Black Hills National Forest, SD; Jasper Fire burned approximately 83,500 acres between Custer, SD and Newcastle, WY.

**Timeframe**            June 2003 – April 2005 (project built on results of previous research)

### **Summary or Important Findings**

- Seven woodpecker species were found in the burn site.
- Hairy woodpecker was the most common. Lewis's woodpecker was the least common. Other species were Northern Flicker, Red-headed Woodpecker, Black-backed Woodpecker, Downy Woodpecker, and Red-naped Woodpecker.
- Diameter of the nest tree influenced whether snags were occupied.
- The leading causes of nest failures for the Black-backed Woodpecker were predation and snag breakage.

**Best contact person**            Eileen Dowd Stukel, SDGFP

### **More Information**

Vierling, K. 2005. Report on woodpecker breeding in the Jasper fire. Submitted to the Game, Fish and Parks Department. South Dakota School of Mines and Technology/University of Idaho, May 18, 2005.

Vierling, K. T., L. B. Lentile, and N. Nielsen-Pincus. 2006. Preburn characteristics and woodpecker use of burned coniferous forests. *Journal of Wildlife Management* 72(2):422-427.