

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Interpretive presentation about invertebrate resources at Devils Tower National Monument

Discipline: Natural Resources
Type of Project: Education and Technical Assistance
Funding Agency: National Park Service
Other Partners/Cooperators: University of Wyoming
Effective Dates: 4/15/2013 - 12/31/2014
Funding Amount: \$8,121

Investigators and Agency Representative:

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Project Abstract: To educate Monument visitors about the invertebrate resources at Devils Tower National Monument, Wyoming Natural Diversity Database (WYNDD) will prepare two presentations: land snails at Devils Tower and aquatic invertebrates in the Belle Fourche River. For both presentations, WYNDD will spend a day with the interpretive staff at Devils Tower educating them about invertebrates so they can give the presentation to visitors.

Land snails are a fascinating group of invertebrates that are found throughout much of the Monument. Information for the presentation would be based on the recent survey of land snails at Devils Tower National Monument (Tronstad 2011) and the Black Hills (Tronstad and Andersen 2011). Land snails usually live in cool, moist areas (e.g., north-facing slopes, in floodplains, near springs, or in forest floor litter) with limestone, because water is needed to survive and calcium is needed to make their shells. Snails are vital components of the food web, because they break down dead organic matter (e.g., leaves, grass). Additionally, snails are food for animals, such as birds, small mammals, and reptiles. The life cycle of snails is unique and their methods of survival are intriguing. A presentation about land snails would introduce visitors to what land snails eat, where they are found, what land snails look like, how they reproduce, why they are important to the landscape of Devils Tower, why land snails live at Devils Tower, and basic snail identification. WYNDD will fill the presentation with colorful photos of land snails I have taken with a microscope camera.

The second presentation would be about aquatic invertebrates in the Belle Fourche River at Devils Tower National Monument. Information for the presentation would be based on an on-going study using aquatic invertebrates to monitor the health of the Belle Fourche River as it flows through the Monument (Tronstad, in progress). The Belle Fourche is home to a diversity of aquatic invertebrates, such as aquatic snails, mayflies, beetles, caddisflies, true flies, and mussels, and each invertebrate taxa has their own lifestyle and role in the river. These animals are food for fish, birds, spiders, and other animals that feed in the river and riparian area. The presentation would educate Park visitors about what aquatic invertebrates look like, basic identification of aquatic invertebrates, how invertebrates live in running water, how they breathe and reproduce, their function in the food web, how they are used to estimate river health, and why they are important to the Devils Tower landscape. The presentation will be filled with colorful photos of aquatic invertebrates and the Belle Fourche River.

Outcomes with Completion Dates: Final Report by March 1, 2014

Keywords: visitor education, interpretive presentations, invertebrate resources, Belle Fourche River, Devils Tower National Monument, University of Wyoming, Wyoming Natural Diversity Database