Project Summary Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Biostatistics Support for National Park Service Fire Ecology/ National Fire Program

Type of Project: Technical Assistance/biostatistics

Funding Agency: National Park Service

Other Partners/Cooperators: N/A

Effective Dates: September 1, 2003 - September 1, 2008

Funding Amount: \$60,000

Investigators and Agency Representative:

NPS KEY Official: Nate Benson, NPS-Fire Management/Fire Ecology Program, NIFC, 3833 South Development Avenue, Boise, Idaho 83705; ph 208-387-5219, nate_benson@nps.gov.

UNIVERSITY CONTACT: Dr. Ken Gerow, University of Wyoming, Statistical Consulting Center, Department of Statistics, University of Wyoming, Laramie WY 82073, (307) 766-6600, <u>gerow@uwyo.edu</u>

INVESTIGATOR:

Dr. Trent McDonald, University of Wyoming (adjunct faculty), (307) 760-4721

Project Abstract:

This project will provide biostatistics support for the National Park Services Fire Ecology Program. The University of Wyoming Statistical Consulting Center (UWSCC) will provide specialized statistical assistance through sub-teams formed for a particular statistical problem or course need, with Dr. Gerow serving as principal investigator. The UWSCC will provide support through the review of study designs, consulting on preliminary sampling and sample size determination, consulting at all phases of project planning, work, analysis, and write ups including the review of manuscripts for statistical methods used and interpretation of data. The UWSCC will provide expertise in biological/ecological monitoring designs, Bayesian statistics, non-parametric statistics, multivariate statistical tests, and geospatial statistics. The UWSCC will also assist with the development of statistics and probability-based tools, and provide training courses (up to 5-day as identified. Specific technical assistance to be rendered may include the use of Seasonal Kendall and other Nonparametric trend analysis, Bayesian statistics and confidence intervals, time series trend analysis, and geospatial statistics.

Outcomes with completion dates:

Final Products - Statistical Consultation Final Products include: Assist in developing and instructing online and/or class room statistical refresher course; support other fire ecology courses; provide on going statistical consultation services End date for Project: September 1, 2008

Keywords: Biostatistics, NPS Fire Ecology Program, geospatial statistics, statistics training