USE OF REMOTE SENSING TECHNOLOGY TO CHARACTERIZE RE-GROWTH OF VEGETATION FOLLOWING FOREST FIRES IN GLACIER NATIONAL PARK, MONTANA

Kari Pabst, Heidi Underwood and Craig Spencer
Biology Department
Augustana College
Sioux Falls, SD 57197

Don Ohlen
EROS Data Center
Sioux Falls, SD 57198

ABSTRACT

The 1988 Red Bench fire burned over 40,000 acres of coniferous forest in Glacier National Park. A burn severity map of the Red Bench fire was prepared using pre and post-fire Landsat images and calculating the differenced Normalized Burn Ratio (dNBR). Regrowth of vegetation was then assessed within zones of different classes of burn severity to determine the effect of burn severity on the rate of ecological succession using the Normalized Difference Vegetation Index (NDVI). We also traveled to the burn area for ground truthing work and to assess species composition. Following intial colonization by various herbaceous species, much of the Red Bench burn has become dominated by dense growths of lodgepole pine (Pinus contorta).