

JFSP Project Number: 04-2-1-94. *Effects of Fire Severity and Distance from Unburned Edge on Mammalian Community Post-Fire Recovery*

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1. Why is the research important from your perspective?

Responses of mammal communities to wildfires are not well researched. Although some studies have looked at how certain mammal species or groups of species respond to fires in different environments or over relatively short time spans, none have comprehensively investigated post-fire recovery of the mammal fauna in chaparral communities, and none have attempted to simultaneously study the effects of fire severity and distance from unburned habitats on the recovery process. The large size of the Cedar Fire created a rare opportunity to investigate these distance and severity effects on post-fire recovery of numerous chaparral-dependent species, over a span of several years, in a robust, statistically valid manner.

2. How will managers and practitioners use this research?

The study will generate information that managers can use to better understand the effects of wildfires, prescribed fires, and other fire-management actions on mammal species and communities in southern California. This information can help guide decisions on the size, location, and intensity of prescribed fires in various habitats so as to avoid conflicts with wildlife management goals in this biodiversity hotspot.

3. Is the work applicable at local, regional, or national scales and why?

The work is definitely applicable at the local and regional scales, and has implications for the national scale. At the local scale (San Diego County), results can inform post-fire restoration plans and fuel management efforts. Because the species and vegetation communities under study are widely distributed in southern California, the results can be extrapolated to inform management efforts throughout southern California's chaparral ecosystem. The observed patterns may also hold lessons in both post-fire recovery and integrating fire ecology with wildlife management for other ecosystems as well.

4. Please provide contact information for three managers or field practitioners who can provide testimonials of how they use your research findings for each JFSP project (Name, Title, Organization, Phone number, and E-mail).

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