

# USE OF PRESCRIBED FIRE FOR THE RECOVERY OF THE ENDANGERED PETERS MOUNTAIN MALLOW (*ILIAMNA COREI*)

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## ABSTRACT

During 1990, the entire wild population of the federally endangered Peters Mountain mallow, (*Iliamna corei*) was restricted to three plants at a single site on a mountainous tract in Virginia owned by The Nature Conservancy. Investigation of the soil and leaf litter surrounding the remaining plants revealed an extensive seed bank, which proved to be viable. Seed germination studies indicated that scarification of the plant's unusually hard seed coat was required to break seed dormancy, and fire was found to be an effective mechanism for stimulating germination. Fire history studies conducted as part of this project indicate a mean fire-return interval for Peters Mountain of 6.1 years since the 1940's, and oral accounts of disturbance indicate large fires on the mountain in the early 1940's and 1950's. In the period from 1992 to 1994, three low-intensity, early growing-season research burns were conducted within the known seed bank area and have resulted in the recruitment of several new cohorts and age classes of Peters Mountain mallow. Over 50 juvenile and adult plants now occur at the natural population site. Additionally, the effects of fire on adult plants were tested in an experimental garden setting. All plants produced new stems, and all but one successfully fruited during the growing season, suggesting that adult Peters Mountain mallow plants are adapted to growing-season fire. While the outlook for the survival of Peters Mountain mallow has dramatically improved, long-term recovery of this species depends on the cautious restoration of a natural fire regime to this woodland glade community.

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