GROWTH RESPONSE OF LARGE GIANT SEQUOIA ALONG A DISTURBANCE INTENSITY GRADIENT (2E)

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I have recently cored large giant sequoia that experienced a very broad range of mechanical disturbance intensities, from a very low intensity fuel treatment installed in 1964 by the pioneering fire scientist Harold Biswell, to the more high-intensity harvests done on federal lands in the 1980's. Preliminary results are clear that the higher intensity disturbances led to much greater and more prolonged radial growth, and that even the relatively low intensity disturbance resulted in increased, albeit short-lived growth increases. This study agrees with other recent work, which suggests that large giant sequoia maintain a surprisingly high capacity to respond to competition removal. These results have implications for how long and to what degree managers might expect specimen giant sequoia to respond to treatments that reduce fire hazard within native giant sequoia groves.

Key words: Giant sequoia, fuel treatments, disturbance intensity, growth response, release