



Research Brief for Resource Managers

Release:
June 2013

Contact:
Jon E. Keeley
Liz van Mantgem
Hugh D. Safford

Phone:
(559) 565-3170

(707) 562-8934

Email:
jon_keeley@usgs.gov
evanmantgem@usgs.gov
hughsafford@fs.fed.us

Central and Southern California Team, USGS Sequoia and Kings Canyon Field Station, Three Rivers, CA 93271
Sierra Nevada Team, One Shields Avenue, Davis, CA 95616

Pratt's Arguments Against "Light Burning" in 1911

Pratt, M. B. 1911. Results of "light burning" near Nevada City, California. Forest Quarterly:420-422.

While walking past a neighbor's house one day in 1911, Mr. Pratt noticed that the rancher had a fire on his land and an assistant helping to spread the fire along the bottom edge of a slope. Mr. Pratt was surprised that the landowner was letting the fire damage so many young trees when it could have been easily extinguished! The rancher countered that "the young timber killed did not amount to much as it was too thick anyway. His contention was that the timber left will now grow better and that he will have more in the long run than before the fire." Mr. Pratt did not agree and used the rest of his paper to quantify the shameful loss of timber in such fires.

On one ¼ acre plot, similarly burned, Pratt sorted the remaining yellow pine trees into five age classes, alive and dead. With this case study, Mr. Pratt concluded that most of the young trees up through Class III (10 to 20 years old) were ruined by the fire and a potential crop of 8,000 board feet per acre had been reduced to 2,700 board feet per acre. Quite a loss! Further, he argued that there wasn't any fire protection from light burning because the undergrowth would grow back just as flammable as before.

Management Implications

- Without research to support their actions, early 1900's Nevada City landowners often let springtime fires burn, thinning out young trees and protecting the mature timber from bigger fires during the dry season.
- Mr. Pratt, like many against "light burning" practices in those days, claimed these small fires were unnecessary and only caused an expensive loss of merchantable lumber over the years. Like the light-burning advocates, Mr. Pratt had no research on his side.

	Alive	Dead
Class I—1 to 5 years
Class II—5 to 10 years	1	23
Class III—10 to 20 years	28	46
Class IV—20 to 40 years	59	24
Class V—over 40 years

Mr. Pratt used these tallies from a burned ¼ acre plot to argue that the "light burning" practice needlessly killed young trees in age classes I through III.