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Jon E. Keeley and Paul H. Zedler. 2009. Large, high-intensity fire events in southern California shrublands: debunking the fine-grain age patch model. *Ecological Applications* 19:69–94.

Appendix D. Further notes on Goforth and Minnich's (2007) alternative interpretation of the 1889 Santiago Canyon Fire published in *Ecological Applications* 17:779–790.

Goforth and Minnich (2007) attempt to demonstrate the 1889 Santiago Canyon Fire was of little consequence by arguing that its fire perimeter should have been contained within the perimeter of the more recent 1948 Green River Fire, also in Orange County. They contend that the burning patterns would have been the same between the historical 1889 fire and the more recent fire, which is an odd argument since their central thesis (see also, Minnich 1983, 1995, 2001) is that fire suppression has caused 20th century fire behavior to be quite unlike that of historical fires. Nonetheless, in their comparison of the 1948 Green River Fire with the 1889 Santiago Canyon Fire, they failed to consider the fact that there were substantial differences in the duration of Santa Ana winds, plus differences in fire suppression. The winds driving their 1948 fire subsided after the first day, and intensive fire suppression action prevented it from expanding further (*Los Angeles Times*, 6 Nov 1948). A day later winds picked up sparks and started spreading it again, but with an 800 person crew on site it was readily suppressed (Cermak 2005). Even if their assumption that the 1948 Green River Fire was a model for the 1889 Santiago Canyon Fire, it still suggests that this 19th century fire was over 20,000 ha, which is a sizable fire by contemporary standards and not predicted by the fine-grain age-patch model. However, our analysis shows the 1889 fire was considerably larger, perhaps by an order of magnitude.

Most of the arguments Goforth and Minnich (2007) pose against the existence of the massive 1889 Santiago Canyon Fire center on what they see as exaggerations and errors made by newspaper reporters. We contend that their criticisms of the media are unsubstantiated. In addition to the discussion in the main text, we find additional problems with their thesis.

They cite the headline “Burning of Three Thousand Sheep” as an example of exaggeration and a classic case of yellow journalism. It is clear through examination of the newspaper reports transcribed in Appendix A that there were conflicting opinions about the correctness of this report, however, there is no indication that it was an intentional exaggeration. The fact that the *Los Angeles Times* reported both the incident and subsequently a denial of the incident suggests otherwise. In fact most of the accounts of damage were stated somewhat equivocally, such as “on the San Joaquin ranch a band of sheep, numbering 3,000, were overtaken by the fire, and it is *thought* [italics added] that all perished (Appendix A-23), or “He *believes* that a number of cattle and sheep have fallen victims to the flames” (Appendix A-26), or “thousands of sheep are *supposed* to have lost their lives in the conflagration” (Appendix A-62). This seems like responsible

journalism that made it clear that the exact situation was not known at the time. This reporting does not warrant the slanderous title of yellow journalism.

Also offered by Goforth and Minnich (2007) as an example of exaggerated reporting was the claim that “*fully 65,000 acres were burned*” on the Santa Margarita Ranch (Appendix A-60). They questioned the integrity of the newspaper reporters because they believe that observers in 1889 could not have made such a precise estimate of fire size on the Santa Margarita Ranch since they lacked accurate topographical maps. However, in 1889 the Public Land Survey system had already been in effect for more than a century and land survey maps for southern California would have provided accurate measures of ranch size (given in most historical documents as 133,440 acres for the Santa Margarita Ranch, Brackett 1939) from which one could estimate fire size. Additionally, the newspaper report stated “*fully 65,000 acres,*” which indicates this was a lower estimate of a perhaps much larger value and was not intended as a precise figure.

Another example given by Goforth and Minnich (2007) of newspapers pandering to sensationalism is the quote: “The fire which has been burning for the past two days still continues in the canons. The burned and burning district now extends over one hundred miles from north to south, and is 10 to 18 miles in width” (Appendix A: Riverside Daily Press and Tribune, 27 Sept 1889). From a careful analysis of the newspaper accounts presented in the main text, we believe the width of the 1889 Santiago Canyon Fire was certainly within the range of 15 – 30 km, but the north-south distance would not likely have been more than about 100 km (60 miles), and possibly less. It does not follow, however, that this was an intentional distortion of facts. It is possible the quote referred to all the fires burning from San Bernardino to San Diego counties, in which case the north-south dimension would be accurate but the east-west dimension would be too small. Goforth and Minnich (2007) offer another explanation; “Distance and area could not be accurately estimated near Santa Ana in 1889 because topographic maps were unavailable.” This seems like as good an explanation as any for the discrepancy.

One of the strongest pieces of evidence that vets most all of the newspaper reports is the firsthand account of this fire event by forester L.A. Barrett (1935). We find it rather self-serving for Goforth and Minnich (2007) to discount this testimony because he was only 15 years of age at the time of the incident. We note that historians have often embraced such accounts by adolescents; e.g., Anne Frank’s Diary (Frank 1995) has not been generally discounted because she was a young teenager.

Goforth and Minnich (2007) go to great lengths to argue that the 1889 Santiago Canyon Fire did not burn in chaparral, but rather it burned other vegetation types such as sage scrub or grassland. This argument is apparently important to them because of their belief that fires follow vegetation boundaries and the conditions required to burn chaparral are much different than for other vegetation types. However, overlaying any recent large fire perimeter map with a vegetation map will show that this is generally not true. The arguments Goforth and Minnich (2007) use to discount the importance of chaparral in the 1889 Santiago Canyon Fire is based on several errors they made. First they assumed that the fires were restricted to the coastal plain and foothills and did not burn in the

mountains, yet countless newspapers report otherwise (Appendix A-22,24, 25,28,34,39,52,55,60). In addition, they mis-identified the site referred to in the Daily San Diegan (Appendix A-60) as “Coral del Luce” (Rivers 1999; red oval in Fig. D1) and mistakenly assumed it was the train station “Corral de la Luz” (black oval). Since the vegetation between the train station and the ranch house (white oval) was not chaparral they seem to feel justified concluding that this was a grassland fire. However, the reconstruction of this fire in the main text shows the fire burned as indicated by the red arrows and this included substantial areas of chaparral (light and dark green).

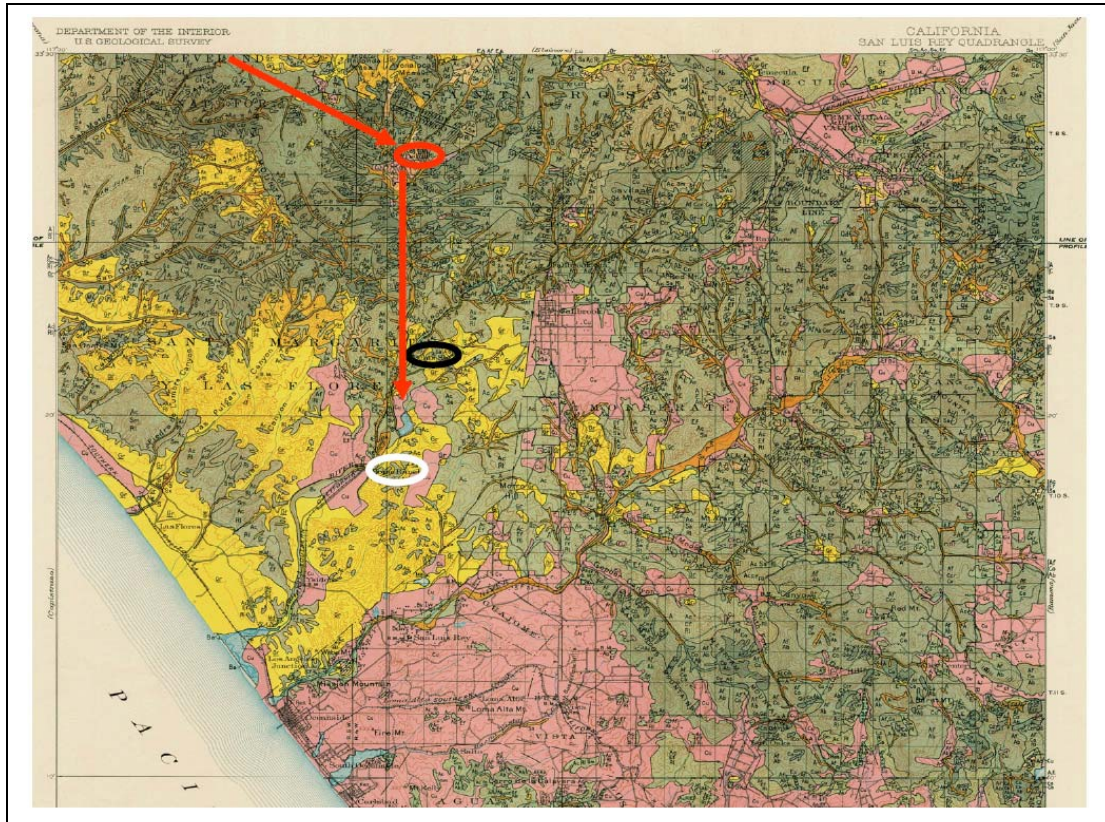


FIG. D1. Vegetation type map for the San Luis Rey Quadrangle in northwestern San Diego County, California. The upper half depicted comprised the bulk of the Santa Margarita Ranch as it existed in 1889. The white oval is the main ranch house, the black oval is the train station known as Corral de la Luz and the red oval the present town of De Luz and the site of the Coral del Luce. Red arrows indicate the direction of burning as described in Appendix A-60,62. Color key: pink = urban or cultivated; yellow = grassland; hatched light green = sage scrub; light and dark green = chaparral. Surveyed in 1931 under the direction of A.E. Wieslander, published by the USDA Forest Service, 1943 (obtained from the National Archives, Washington Archives II, College Park , Maryland, USA).

LITERATURE CITED

Barrett, L. A. 1935. A record of forest and field fires in California from the days of the early explorers to the creation of the forest reserves. USDA Forest Service, San Francisco, California, USA.

Brackett, R. W. 1939. A history of the ranchos of San Diego County California. Union Title Insurance and Trust Company, San Diego, California, USA.

Cermak, R. W. 2005. Fire in the forest. A history of forest fire control on the national forests in California, 1898–1956. USDA Forest Service, Pacific Southwest Region, R5-FR-003, Albany, California, USA.

Frank, A. 1995. The diary of a young girl. Doubleday, Amsterdam, The Netherlands.

Goforth, B. S., and R. A. Minnich. 2007. Evidence, exaggeration, and error in historical accounts of chaparral wildfires in California. *Ecological Applications* 17:779–790.

Minnich, R. A. 1983. Fire mosaics in southern California and northern Baja California. *Science* 219:1287–1294.

Minnich, R. A. 1995. Fuel-driven fire regimes of the California chaparral. Pages 21–27 *in* J. E. Keeley and T. Scott, editors. *Brushfires in California wildlands: ecology and resource management*. International Association of Wildland Fire, Fairfield, Washington, USA.

Minnich, R. A. 2001. An integrated model of two fire regimes. *Conservation Biology* 15:1549–1553.

Rivers, D. 1999. De Luz, origin of name. Village News, 11 February 1999 (<http://www.Fallbrook.org/history/deluz.asp>).

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