



A33 An Overview of the Camp Fire and Wildfire Situation in the West

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Learning Overview: After attending this presentation, attendees will understand the scale and scope of the wildfire situation in the western United States and the critical need for planning for such future large-scale disasters.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by providing an overview of the preparation needed to access appropriate personnel, train teams in the identification of badly burned human remains, and establish support structures that facilitate the work on wildfire victims.

California, along with many western states in the United States, has experienced climatic changes with higher summer temperatures, a prolonged season without rain and, recently, winter rains that facilitated plant growth, thereby increasing the fuel load. These changes have been accompanied by increasing development of housing in once rural areas, often moving into heavily forested or wooded areas with limited access. These environmental and human factors have combined to produce conditions where wildfires can spread rapidly and have a fatal impact.

In recent years, California has seen a dramatic increase in wildfire deaths along with the acreage consumed. For example, in 2010 there were 17 wildfires over 1,000 acres in the state but no fatalities. In contrast, in 2017 there were 61 such fires and 34 deaths, and in 2018 there were 58 fires and 100 fatalities. Of the 20 largest wildfires on record in California, 15 have occurred since 2000. Likewise, 15 of the 20 most destructive fires (in terms of fatalities and structures destroyed) have also occurred since 2000. In the past, first responders were often those who died, but, increasingly, fires are sweeping through residential areas with little or no time to mount evacuations. The bulk of those dying have been trapped in houses or vehicles.

The Camp Fire, which started during a period of high winds in the early morning of November 8, 2018, epitomizes the problems. The fire swept through the small communities of Concow and Magalia but also demolished much of the city of Paradise. Limited egress trapped people in cars while the high number of elderly and/or disabled residents meant many were unable to flee. Those who could escape often did so with few possessions and limited means of communication, prompting frantic calls to the sheriff's office regarding missing relatives. In the aftermath, Butte County was faced with a huge number of "missing" and an unknown number of deceased in an area of more than 150,000 acres where downed power lines, ongoing fires, and poor communication systems were the norm.

As the frequency of fire deaths has increased, anthropologists, led by California State University (CSU) Chico, pathologists, odontologists, and other forensic scientists have developed strategies for search, recovery, and identification efforts that have proven to be effective and efficient. These approaches came into play with the Camp Fire and enabled systematic recovery and identification. Strategies balance the different contributions that members of the search and recovery teams bring along with the post-recovery analysis and identification. From this experience, lessons learned as well as potential pitfalls highlight the need for preparation, collaboration, coordination, delegation, and focus.

Camp Fire, Wildfire Responses, Mass Fatality