Table 1—*Major-settlement period fires, before 1910.*

Fire Name	Location	Date	Size and Losses[1]	Comments[2]
Miramichi	Maine	1825	1.2 MM Ha; Lives	Many fires, undetermined drought; wind
Black Thursday	Victoria, Australia	1851	10 killed	
Peshtigo/Michigan	northeast Wisconsin Upper Michigan	1871	1.6 MM Ha; 1,200 to 1,500 killed	Many fires, drought,wind
Michigan	primarily northeast ("thumb") area of southern Michigan	1881	400 M Ha; 169 killed	Many fires, drought, hot
Hinckley	Minnesota	1894	418 killed	Many fires, drought, hot
Far West	Yacoult, Washington	1902	>500 M Ha; 38 killed low relative humidity	Dry summer; hot, windy,
Adirondack	New York	1903	258 M Ha; none killed	Dry winter, strong winds

[1]M = 1,000; MM = 1,000,000

[2] Haines and others (1986) present evidence that many of these fires occurred without drought or severe weather preceding the fire, based on historical weather records. (Brown and Davis 1973, Forest Fire: Control and Use; Australia, C. Trevitt and P. Cheney 1973).

Table 2—*Suppression-period fires, 1910 to 1960.*

Fire Name	Location	Date	Size and Losses[1]	Comments[2]
Great Idaho	northern Idaho, western Montana, eastern Washington	1910	1.2 MM Ha; 85 killed	Hot, dry, windy; spring and summer
Cloquet	Minnesota	1918	551 killed	Hot, dry, windy
Victoria	Australia	1919	3 killed	Fires burned for 6 weeks.
Berkeley	Berkeley, California	1923	584 structures destroyed	East winds
New South Wales and Victoria	Australia	1926	31 killed, 2,000 homeless	
Mill Valley	N. California	1929	117 homes lost	
Tillamook	Oregon	1933	126 M Ha	Dry, hot summer, east winds
New South Wales and Victoria	Australia	1939	1.37 MM Ha, 71 killed, over 1,000 homes destroyed	
Marshfield	Massachusetts	1941	450 homes lost	
Southern California (series)	southern California	1943	200 homes lost	
Maine Forest Fire Disaster (series)	Maine	1947	1200 homes; 16 lives lost	
New South Wales	Australia	1951	3.5 MM Ha; 6 killed	
Manchuria	China	1956	400 M Ha	

[1]M = 1,000; MM = 1,000,000

[2]Sources: Brown and Davis 1973; Trevitt and Cheney 1973.

overruled by those in favor of fire exclusion (Pyne 1984). Although scientific evidence supported the use of fire, the political accidents of gaining control in Washington, DC, led to a policy of fire exclusion.

Urban Interface and Fire Management Period

During the urban interface and fire management period, wildland fires began to involve structures again, and the idea of fire management began to evolve. Wildland fires had not been involved with structure losses in the United States since the 1923 Berkeley fire. Suddenly, because of the Harlow and Bel Air Fires of 1961, wildland fire threats to urban areas were again a reality. Although many in the fire service and those in the academic community such as Harold Biswell recognized the potential threat of wildland fires to urban areas, many years passed before a broader awareness of the problem evolved.

Table 3—*Fires of the urban interface and fire management period, 1961 to the present.*[1]

Fire Name	Location	Date	Size and Losses[2]
Harlow	central California	1961	106 homes; 2 lives lost
Bel Air	southern California	1961	505 homes lost
Dwellingup	western Australia	1961	146M Ha; 140 bldgs lost
New Jersey Fires (series)	New Jersey	1963	458 homes; 7 lives lost
Staten Island	New York	1963	100 homes lost
Parana	Brazil	1963	2 MM Ha; 5000 homes; 110 lives lost
Hanley, Nuns Canyon Fires	northern California	1964	295 homes lost
Coyote	southern California	1964	106 homes lost; 2 lives lost
Tasmania	Australia	1967	263 M Ha; 1246 buildings; 62 lives lost
Wright, Los Angeles	southern California	1970	103 homes lost
Laguna, San Diego	southern California	1970	382 homes; 5 lives lost
Sycamore, Santa Barbara	southern California	1977	234 homes lost
Kanan, Los Angeles	southern California	1978	224 homes; 1 life lost
Panorama, San Bernardino	southern California	1980	325 homes; 4 lives lost
Ash Wednesday Fires	Victoria and South Australia	1983	392M Ha; 2545 bldgs; 75 lives lost
Black Dragon	northern China	1988	>2 MM Ha
49er	northern California	1988	148 homes lost
Paint, Santa Barbara	southern California	1990	479 homes; 1 life lost
Tunnel, Oakland/Berkeley	northern California	1991	2103 structures, (2475 living units); 25(26) lives lost
Fountain, Redding	northern California	1992	450 homes lost
Altadena, Los Angeles	southern California	1993	118 homes lost
Laguna, Orange County	southern California	1993	366 homes lost
Malibu, Los Angeles	southern California	1993	350 homes; 3 lives lost
New South Wales	Australia	1994	1.2 MM Ha; 185 homes plus other bldgs; 3 lives lost

[1]Sources: California, Reports of the California Department of Forestry and Fire Protection; Australian, P.Cheney, and C.Trevitt ; Brazil, R.Soares. United States fires from Brown and Davis, 1973, Forest Fire: Control and Use; Australia, C. Trevitt and P. Cheney. Eleven Fires from United States are from Brown and Davis, 1973, Forest Fire: Control and Use; Australian, C. Trevitt and P. Cheney; California, Reports of the California Department of Forestry and Fire Protection.

[2] M = 1,000; MM = 1,000,000

Although the list of fires for this period (*table 3*) is not complete, it illustrates that large and disastrous wildland or urban/wildland fires have not diminished; if anything, they have continued to increase in frequency. Numbers of structures lost has increased. In California, as many as 3,500 homes were lost to urban/wildland fires in the 7 decades from 1920 to 1989. In the early 1990's, about 4,200 homes were lost. Although the numbers of human lives lost to wildland fires has decreased since the settlement period, during the last 70 years, loss of life continues because of wildland fires.

Summary

Fire has been part of many terrestrial vegetation communities, and the use of fire as a powerful tool by many native peoples around the world was an important factor in their survival or extinction. Fire was foreign to the land management philosophy during expansion of the conservation movement. This fact, in addition to the large fires that had occurred, led to a policy of fire suppression and exclusion.

Large wildland fires usually are described as "disastrous" when large losses of human life or property occur, as with the "disastrous" 1988 Yellowstone fires. Yet in terms of effects on natural systems, the fires were not disastrous.

Losses of homes or structures increased during the fire management period. This is probably because of more people living near vegetation without the advantage of livestock or other means to manage fuels near structures. The fire management period itself, which advocates fuels management, is not responsible for the increase in acreage and homes lost. Rather, it is the long-term fuel accumulation from the suppression period that has contributed to the fire problem. Today, even with the recognition of the need for fuels management in both vegetation and structures, the most ecologically sound tool for managing fuels—prescribed burning—is severely underused because of human inertia and air quality constraints. Some local programs are vigorously attacking vegetation and fuels management, but we can continue to expect large fires and large losses of structures because of the immensity of the urban/wildland fire problem.

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