

Supplementary Material

Climate and weather drivers in southern California Santa Ana Wind and non-Santa Wind fires

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Supplementary Table S1. Size class distribution of fires ignited on non-SAW and SAW days.

Size Class (ha)	Non-SAW	(%)	SAW	(%)	All (%SAW)
<100	1,709	(62)	168	(45)	1,877 (9)
100 - 999	777	(28)	95	(25)	872 (11)
1000 -9,999	250	(9)	83	(22)	333 (25)
10,000 – 49,999	34	(1)	26	(7)	60 (43)
>50,000	4	(<1)	5	(1)	9 (56)

Supplementary Table S2. *t*-test between days without fire and those with fire by month on non-SAW and SAW days for FWI, FMC and DC.

	Month	FWI						FMC						DC					
		Non-SAW			SAW			Non-SAW			SAW			Non-SAW		SAW			
		No-fire	Fire		No-fire	Fire		No-fire	Fire		No-fire	Fire		No-fire	Fire		No-fire	Fire	
San Diego	1	11.2	25.0	**	18.5	31.5	***	77.0	83.8	NS	87.6	91.1	***	630	877	*	616	824	***
	2	11	23.4	**	20.7	34.0	***	78.4	85.3	*	88.4	92.6	***	478	663	**	494	701	**
	3	12.9	25.6	***	19.6	33.2	NS	81.1	88.9	***	88.6	92.9	**	402	581	***			NS
	4	18.2	30.9	***	32.6	46.8	NS	83.5	88.3	***	90.2	91.8	NS	422	579	***			NS
	5	21.9	26.9	***	59.9	35.5	NS	84.8	86.5	***	93.5	90.9	NS	533	634	***			NS
	6	24.4	26.7	***	.	.		85.1	85.9	***	.	.		720	766	***	.	.	
	7	26.2	27.7	***	.	.		85.6	86.1	***	.	.		964	929	***	.	.	
	8	27.6	28.8	***	.	.		85.9	86.4	***	.	.				NS	.	.	
	9	27.8	30.9	***	43.3	48.3	NS	85.6	86.9	***	90	91.5	NS			NS			NS
	10	26.1	33	***	37.5	44.0	**	85.0	88.0	***	89.4	91.0	*			NS			NS
	11	21.9	32.9	***	31.2	46.4	***	82.6	88.0	***	88.8	92.4	***	1173	1288	***	1082	1319	***
	12	14.6	28.2	**	22.6	42.0	***	79.4	86.5	**	87.2	92.3	***	850	111	**	860	1208	***
Riverside	1	17.1	25.8	NS	36.6	64.6	**	80.6	91.1	***	91.2	93.9	*			NS	687	842	*
	2	18.8	36.6	**	44.1	71.3	*	79.1	91.4	***	93.1	96.3	***			NS			NS
	3	23.2	45.7	***	47.5	65.9	*	84.4	93.1	***	92.9	96.9	***	587	904	**			NS
	4	29.5	50.2	***	65.9	82.5	NS	86.6	93.8	***	95.7	95.6	NS	643	915	***			NS
	5	31.4	46.7	***	79.7	63.2	NS	88.3	92.8	***	96.3	98.5	NS	744	979	***			NS
	6	37.1	45.5	***	.	.		90.5	92.6	***	.	.		913	1044	***	.	.	
	7	42.9	47.2	***	.	.		92.3	93.5	***	.	.				NS	.	.	
	8	44.2	47.2	*	.	.		92.7	93.6	**	.	.				NS	.	.	
	9	39.3	47.0	**	76.7	66.5	NS	91.6	93.7	***	96.9	94.9	NS	1178	1262	*			NS
	10	32.6	39.8	**	50	72.5	***	89.0	91.9	**	93.7	96.4	*			NS			NS
	11	25.5	39.8	***	45.1	63.0	**	86.5	91.2	**	92.3	95.9	**			NS			NS

Chino	12	18.0	31.0	*	38.6	68.1	***	81.4	88.3	*	91.2	95.5	***			NS		NS	
	1	27.7	38.4	***	46.2	63.9	**	86.2	91	*	91.8	94.1	*			NS		NS	
	2	27.5	47.9	***	52.9	77.9	**	86.7	91.9	***	93.1	96.1	***	3046	3921	*		NS	
	3	32.6	47.5	***	55.3	69.1	NS	88.3	92.1	**	92.2	94.8	NS				NS	NS	
	4	39.1	55.0	***	52.7	86.5	NS	89.9	94.2	***	92.9	95.0	NS				NS	NS	
	5	39.2	50.2	***	95.4	72.3	NS	90.0	92.6	***	95.8	98.3	NS	3041	3347	*	.	.	
	6	41.3	50.1	***	.	.		90.9	92.8	***	.	.		3171	3400	*	.	.	
	7	47.4	53.7	***	.	.		92.5	93.7	***	.	.					NS	.	.
	8	49.7	54.1	***	.	.		93.2	94.1	***	.	.					NS	.	.
	9	46	54.0	***	68.1	76.9	NS	92.9	94.6	***	96.7	96.4	NS				NS		NS
	10	41.6	51.6	***	59.0	74.5	**	91.5	93.9	***	94.7	96.0	NS	4220	3745	**			NS
	11	37.5	49.9	***	54.0	75.4	**	90.3	93.9	***	93.0	96.4	***				NS		NS
12	29	48.5	**	47.1	71.3	***	87.5	92.1	***	91.9	94.7	**				NS		NS	
Los Angeles	1	10.5	30.8	***	19.6	33.8	***	73.6	86.3	*	88.8	92.3	***	534	952	*	528	858	***
	2	10.6	26.5	***	20.4	26.7	**	75.9	86.1	***	89.6	93.1	***	355	669	***	373	471	**
	3	12.8	24.0	***	21.4	49.8	NS	79.7	88.3	***	89.6	93.1	*	291	480	***	288	484	*
	4	18.9	33.3	***	36.5	48.4	NS	83.5	88.8	***	91.1	93.4	NS	326	450	***			NS
	5	23.5	29.7	***	69.5	50.8	NS	84.9	86.9	***			NS	443	535	***			NS
	6	26.3	29.7	***	.	.		85.5	86.4	***	.	.		631	685	***	.	.	
	7	28.8	30.5	***	.	.		86	86.5	***	.	.		874	853	*	.	.	
	8	29.9	31.3	***	.	.		86.2	86.8	***	.	.					NS	.	.
	9	28.9	32.8	***	51.7	56.7	NS	85.8	87.3	***			NS				NS		NS
	10	27.4	36.3	***	44.0	51.9	***	85.4	88.4	***	91	93.7	***	1295	1352	*			NS
	11	22.7	36.2	***	33.6	50	***	82.6	89.2	***	90.6	94.4	***	1122	1286	***	1042	1317	***
	12	14.3	31.1	***	24.5	43.2	***	78.0	87.4	**	88.8	93.5	***	768	1126	***	827	1275	***

*** $P < 0.001$; ** $P < 0.01$; * $P < 0.05$; NS, $P > 0.05$.

Supplementary Figure S1.

