

Supplemental figures and tables

Sensitivity of Fire Indicators on Forest Inventory Plots is Affected by Fire Severity and Time Since Burning

Smith and Hoover

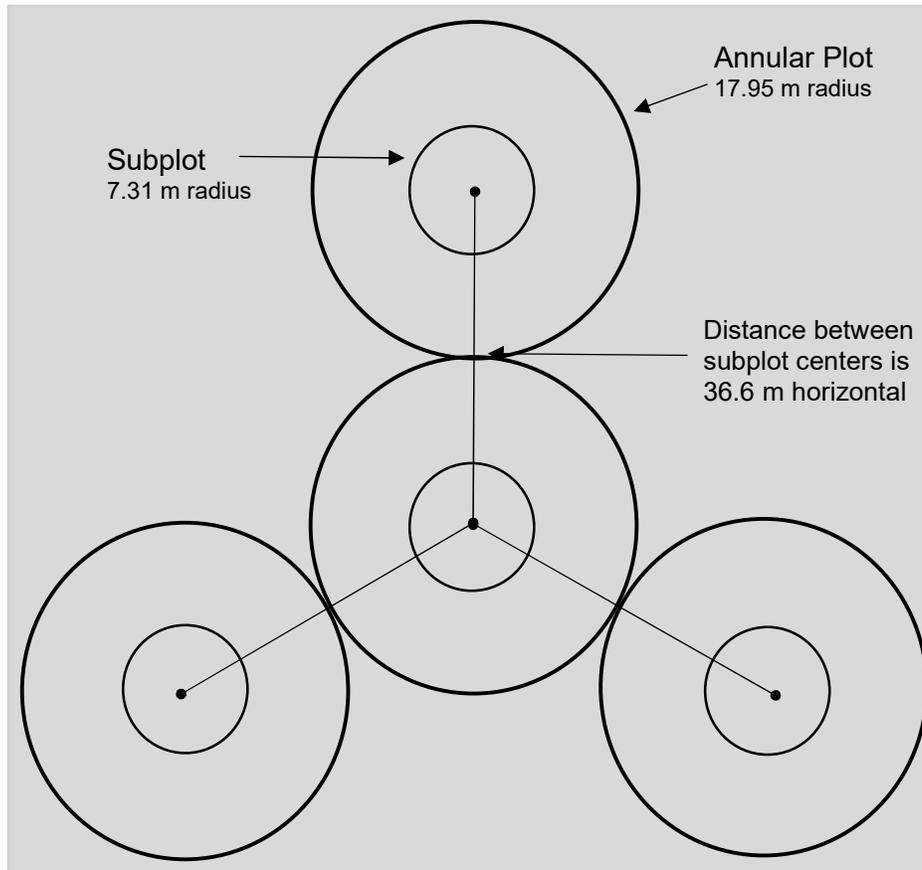


Figure S1. Layout and dimensions of FIA plot. Area sampled (sum of area of the four subplots) is approximately 680 m², “footprint” of plot (area shaded in gray) is approximately 5000 m². For details, refer to FIA documentation (references 16 and 25 as cited in main text).

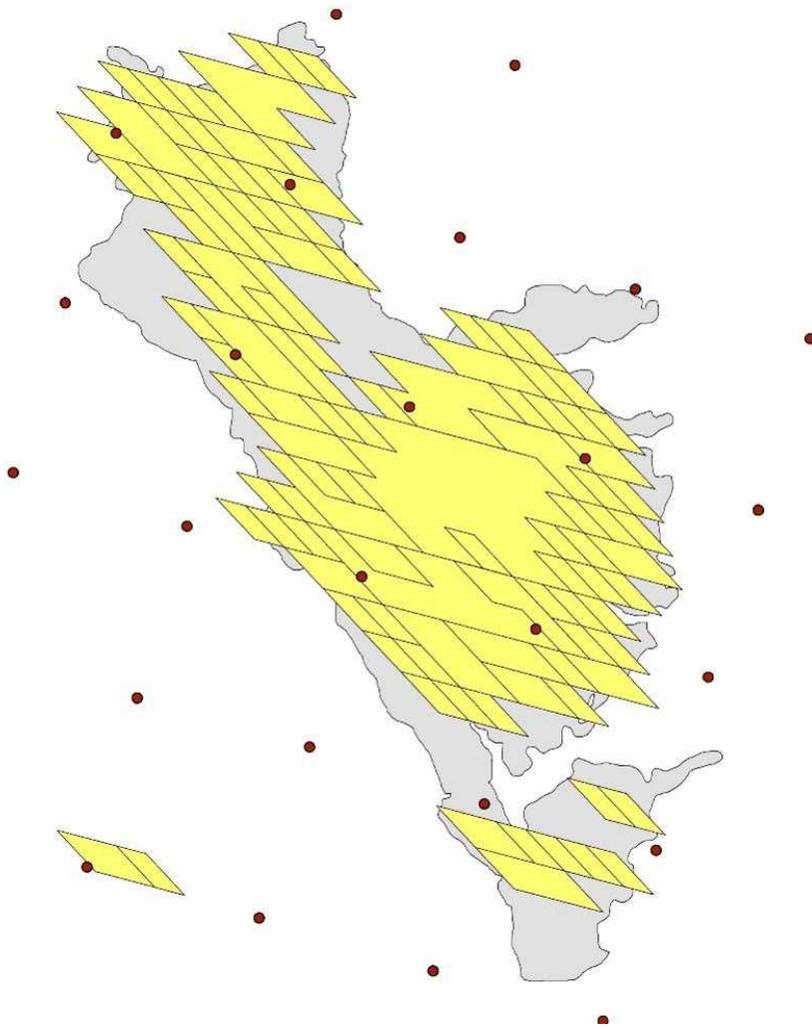


Figure S2. Example from Washington State, USA, showing overlay of FIA plots (red circles), over MODIS polygons (yellow) and MTBS burn perimeter (gray). FIA forest plots included in intersections with burn perimeters are those that fell within a perimeter (MTBS or MODIS) and was measured post-fire within the remeasurement interval (as described in the Methods).

Table S1. Percentage of inventory plots intersecting a MTBS burn perimeter where fire indicators correctly identified a recent fire. The set of plots on burn perimeters includes all burn severity classes 1 through 4 (unburned-to-low to high) at plot location.

Region	Any indicator	Site appearance	Any tree	Tree mortality	Tree damage	Forest plots within MTBS perimeter n
	Percentage of plots (n)					
Pacific Coast	92 (126)	89 (122)	85 (116)	78 (106)	52 (71)	137
Rocky Mountain	84 (134)	72 (115)	80 (128)	77 (123)	25 (40)	160
Great Plains	76 (28)	70 (26)	56 (21)	42 (16)	34 (13)	37
North	79 (10)	69 (8)	69 (8)	47 (6)	46 (6)	12
South	75 (132)	69 (122)	47 (83)	26 (46)	36 (64)	177

Plots on forest land are from inventory years 2013-2019, and the last column is average annual number of plots with forest

Table S2. Percentage of inventory plots intersecting a MODIS burn perimeter where fire indicators correctly identified a recent fire. The set of plots on burn perimeters includes all burn severity classes 1 through 4 (unburned-to-low to high) at plot location.

Region	Any indicator	Site appearance	Any tree	Tree mortality	Tree damage	Forest plots within MODIS perimeter n
Percentage of plots (n)						
Pacific Coast	87 (97)	83 (93)	80 (89)	73 (81)	45 (50)	111
Rocky Mountain	82 (109)	71 (94)	78 (104)	75 (100)	23 (31)	133
Great Plains	66 (24)	61 (22)	48 (18)	38 (14)	28 (10)	37
North	40 (5)	36 (4)	34 (4)	21 (3)	19 (2)	12
South	64 (91)	61 (87)	37 (53)	23 (33)	26 (37)	143

Plots on forest land are from inventory years 2013-2019, and the last column is average annual number of plots with forest.

Table S3. Regionally summarized common start dates for MTBS burns identified as including forest fire from 2001-2020 records.

Region	Months that comprise >66 percent of fire start dates	Percentage of fire starts in these months ^a
Pacific Coast	Jul-Sep	73
Rocky Mountain	Jun-Aug	73
Great Plains	Mar-May	79
North	Mar-May	71
South	Jan-Apr	73

^a Percentage is based on counts of fires; but note that if allocations were based on areas of forest burned, they would produce essentially the same result