

Large-diameter trees dominate snag and surface biomass following reintroduced fire

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Supplemental Information

Table S1. Yearly totals of trees, snags, and deadwood for the Yosemite Forest Dynamics Plot including recruitment, two different categories of mortality (transitions of trees to the snag pool and transitions of trees directly to the surface deadwood pool) and snagfall (transition of a snag to the surface deadwood pool). Dead trees ≥ 1.37 m tall are classified as snags. Dead trees with a remaining stump height < 1.37 m tall are classed as deadwood.

	Year						
	2013	2014	2015	2016	2017	2018	2019
Trees	33,877	9,892	7,314	6,353	5,965	5,874	6,040
Recruitment	316	29	213	278	234	502	1,029
Trees to snags	636	23,441	2,588	1,152	612	294	271
Trees directly to deadwood	14	457	12	22	54	31	65
Snags	4,045	26,813	28,184	26,737	22,002	17,770	13,304
Snags to deadwood	153	393	1,224	2,599	5,347	4,526	4,737
Deadwood [†]	1,353	2,203	3,439	6,060	11,461	16,018	20,820
Complete live tree combustion [‡]	-	408	-	-	-	-	-
Complete snag combustion [‡]	-	273	-	-	-	-	-

[†]For this table, deadwood (downed woody debris ≥ 10 cm diameter) is tabulated as one piece representing the entire tree, even if the tree fell in several pieces.

[‡]Complete live tree and snag consumption refers to trees that were 100% consumed by fire.

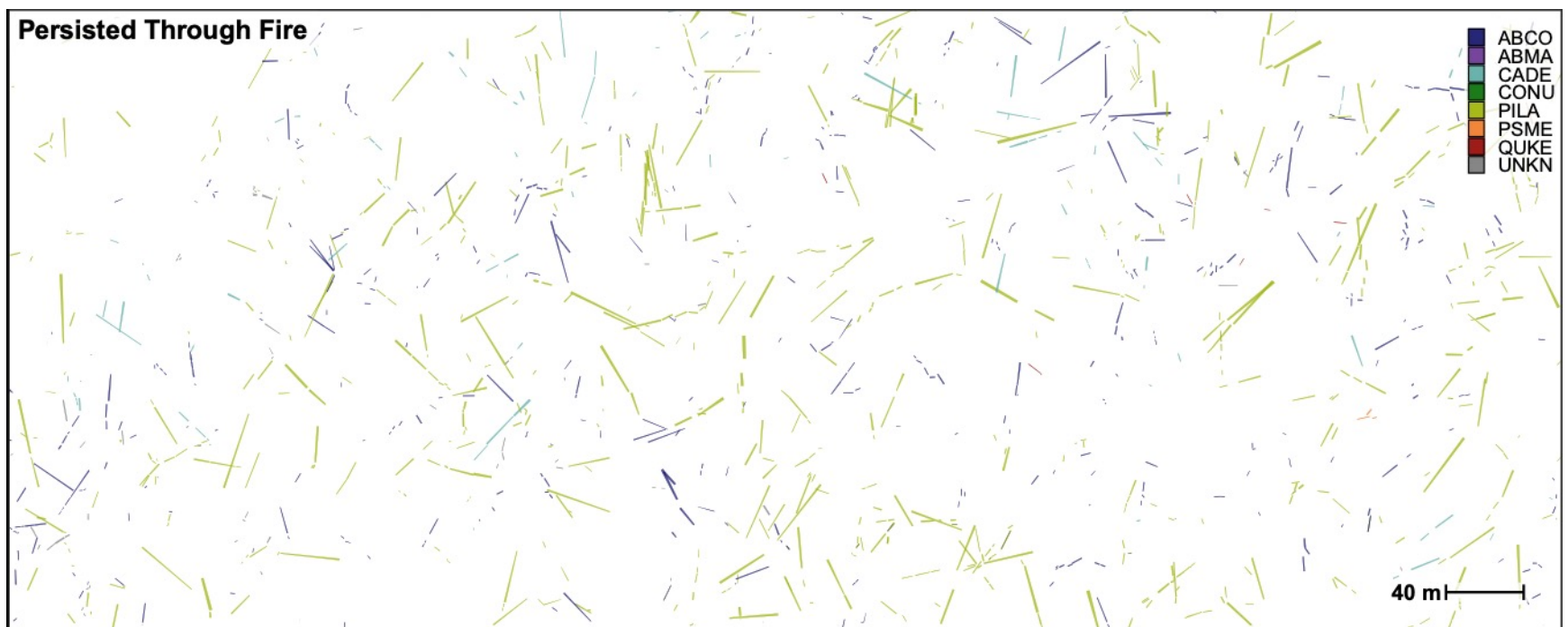


Fig. S1. Deadwood ≥ 10 cm diameter from 2013 and earlier that persisted through fire in the Yosemite Forest Dynamics Plot. ABCO – *Abies concolor*, ABMA – *Abies magnifica*, CADE – *Calocedrus decurrens*, CONU – *Cornus nuttallii*, PILA – *Pinus lambertiana*, PSME – *Pseudotsuga menziesii*, QUKE – *Quercus kelloggii*, UNKN – Unknown.



Fig. S2. New deadwood ≥ 10 cm diameter from 2014 in the Yosemite Forest Dynamics Plot. ABCO – *Abies concolor*, ABMA – *Abies magnifica*, CADE – *Calocedrus decurrens*, CONU – *Cornus nuttallii*, PILA – *Pinus lambertiana*, PSME – *Pseudotsuga menziesii*, QUKE – *Quercus kelloggii*, UNKN – Unknown.



Fig. S3. New deadwood ≥ 10 cm diameter from 2015 in the Yosemite Forest Dynamics Plot. ABCO – *Abies concolor*, ABMA – *Abies magnifica*, CADE – *Calocedrus decurrens*, CONU – *Cornus nuttallii*, PILA – *Pinus lambertiana*, PSME – *Pseudotsuga menziesii*, QUKE – *Quercus kelloggii*, UNKN – Unknown.



Fig. S4. New deadwood ≥ 10 cm diameter from 2016 in the Yosemite Forest Dynamics Plot. ABCO – *Abies concolor*, ABMA – *Abies magnifica*, CADE – *Calocedrus decurrens*, CONU – *Cornus nuttallii*, PILA – *Pinus lambertiana*, PSME – *Pseudotsuga menziesii*, QUKE – *Quercus kelloggii*, UNKN – Unknown.

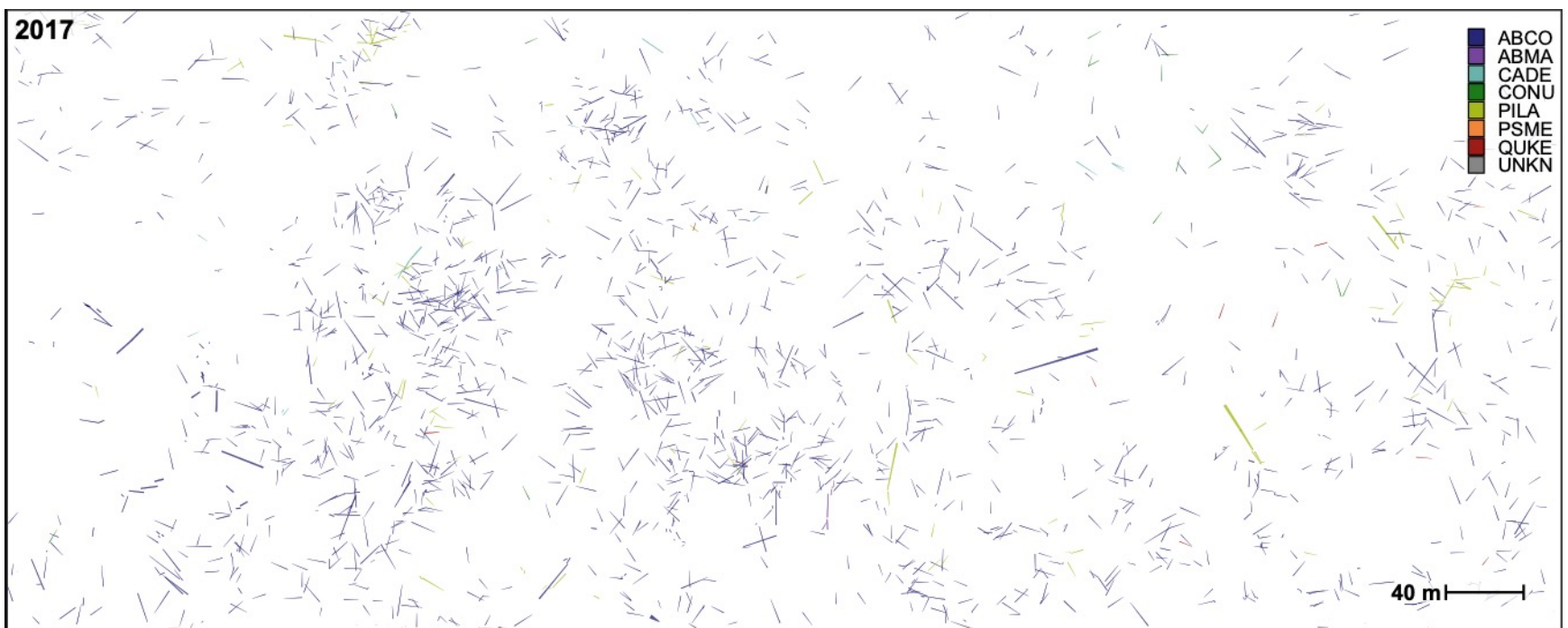


Fig. S5. New deadwood ≥ 10 cm diameter from 2017 in the Yosemite Forest Dynamics Plot. ABCO – *Abies concolor*, ABMA – *Abies magnifica*, CADE – *Calocedrus decurrens*, CONU – *Cornus nuttallii*, PILA – *Pinus lambertiana*, PSME – *Pseudotsuga menziesii*, QUKE – *Quercus kelloggii*, UNKN – Unknown.



Fig. S6. New deadwood ≥ 10 cm diameter from 2018 in the Yosemite Forest Dynamics Plot. ABCO – *Abies concolor*, ABMA – *Abies magnifica*, CADE – *Calocedrus decurrens*, CONU – *Cornus nuttallii*, PILA – *Pinus lambertiana*, PSME – *Pseudotsuga menziesii*, QUKE – *Quercus kelloggii*, UNKN – Unknown.



Fig. S7. New deadwood ≥ 10 cm diameter from 2019 in the Yosemite Forest Dynamics Plot. ABCO – *Abies concolor*, ABMA – *Abies magnifica*, CADE – *Calocedrus decurrens*, CONU – *Cornus nuttallii*, PILA – *Pinus lambertiana*, PSME – *Pseudotsuga menziesii*, QUKE – *Quercus kelloggii*, UNKN – Unknown.

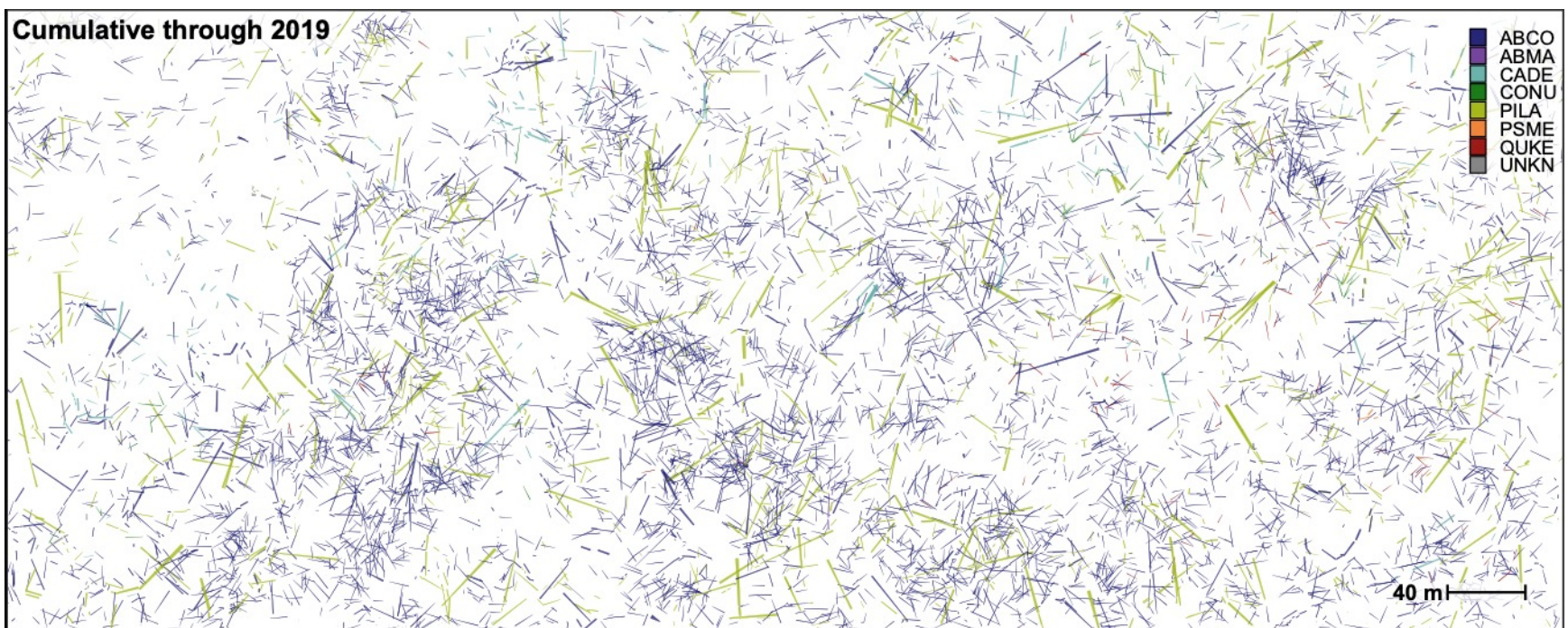


Fig. S8. Cumulative deadwood ≥ 10 cm diameter in the Yosemite Forest Dynamics Plot in 2019, six years following fire. ABCO – *Abies concolor*, ABMA – *Abies magnifica*, CADE – *Calocedrus decurrens*, CONU – *Cornus nuttallii*, PILA – *Pinus lambertiana*, PSME – *Pseudotsuga menziesii*, QUKE – *Quercus kelloggii*, UNKN – Unknown.

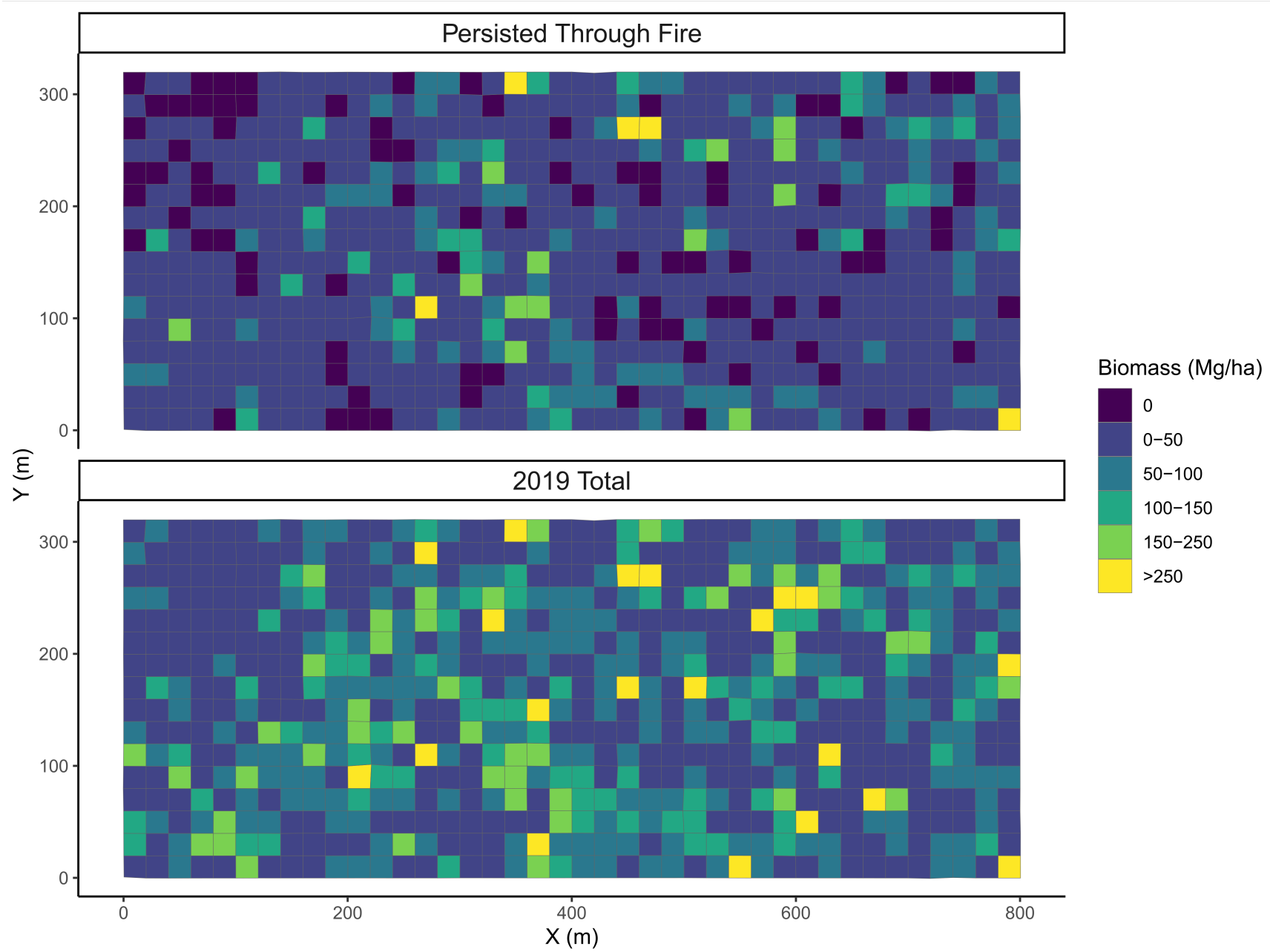


Fig. S9. Spatial variation of surface fuel biomass (≥ 10 cm diameter) in the Yosemite Forest Dynamics Plot at $20 \text{ m} \times 20 \text{ m}$ grain. Locally high levels of biomass persisted through the 2013 Rim Fire (A), contributing 43% of total surface fuels ≥ 10 cm diameter present in 2019 (B).