**Cansler, C. Alina1, Mark E. Swanson2, Tucker J. Furniss3, Andrew J. Larson4, and James A. Lutz3. 2018. Data for pre-fire and post-fire surface fuel loading in a Sierra Nevada mixed-conifer forest.**

**1USDA Forest Service, Rocky Mountain Research Station, Fire, Fuel, and Smoke Science Program, 5775 Hwy 10 W, Missoula, MT 59808**

**2**School of the Environment, Washington State University, Pullman, WA 99164-6420.

**3**Department of Wildland Resources, Utah State University, Logan, UT 84322-5230.

**4**Department of Forest Management, University of Montana, Missoula, MT 59812.

**This data set includes measurements of the 116 fuel transects that were used in Cansler et al. (in review). The research was conducted in the Yosemite Forest Dynamics Plot, Yosemite National Park, California, USA (Lutz et al. 2012).**

**Methods follow those of Brown (1974), with wood density by species and decay class calculated using the values determined by Harmon and Sexton (1996) and Harmon et al. (2008).**

**Metadata**

**File Cansler\_et\_al\_YFDP\_Density\_By\_Species\_By\_Decay\_Class.csv**

**This file contains the wood density values used for the calculations.**

**Species: Four character abbreviation for the tree or tall shrub species – ABCO: *Abies concolor*; CADE: *Calocedrus decurrens*; PILA: *Pinus lambertiana*; QUKE: *Quercus kelloggii*; PSME: *Pseudotsuga menziesii*; CONU: *Cornus nuttallii.***

**Decay\_Class: A number from 1-5 identifying the decay class of the wood.**

**dens\_g\_cm3: The wood density in g cm-3.**

**Citation: The citation for the wood density value – either Harmon and Sexton (1996) or Harmon et al. (2008).**

**File Cansler\_et\_al\_YFDP\_2011\_CWD\_DWD\_input.xlsx**

**File Cansler\_et\_al\_YFDP\_2014\_CWD\_DWD\_input.xlsx**

**These two files with identical field definitions compare the pre-fire (2011) tally of coarse woody debris (CWD) with the post-fire (2014) tally. The two files have identical field definitions.**

**Year: the year**

**Start: The grid marker used as the starting reference for the 20 m transect.**

**Finish: The grid marker used as the ending reference for the 20 m transect.**

**Transect: The transect segement between the two indicated reference points.**

**Spp: The four letter species code (ABCO: *Abies concolor*; CADE: *Calocedrus decurrens*; PILA: *Pinus lambertiana*; QUKE: *Quercus kelloggii*; PSME: *Pseudotsuga menziesii*; CONU: *Cornus nuttallii*; UNKN: Unknown)**

**Dc: Decay class (1-5)**

**Dia.calc: circular diameter equivalent, in cm.**

**Dia.raw and Dia2.raw: Orthogonal measurements of wood cross section used to calculate the equivalent diameter.**

**Char: Char either present or not.**

**Pre: Indication whether the wood was on the ground pre-fire (pre) or fell post-fire (post)**

**File Cansler\_et\_al\_YFDP\_2011\_LitterDuff\_input.xlsx**

**File Cansler\_et\_al\_YFDP\_2014\_LitterDuff\_input.xlsx**

**Two files with identical field definitions comparing the pre-fire (2011) tally of litter and duff (CWD) with the post-fire (2014) tally.**

**Year: the year**

**Start: The grid marker used as the starting reference for the 20 m transect.**

**Finish: The grid marker used as the ending reference for the 20 m transect.**

**Transect: The transect segement between the two indicated reference points.**

**Compass: direction of transect if transect was offset from the pin-to-pin line.**

**Hr1, Hr10, Hr100, Hr1000: The tally of wood meeting the 1-hour, 10-hour, 100-hour, and 1000-hour fuel descriptions from Brown (1974).**

**Litter and duff were measured a odd-number meter intervals along the transect (1, 3, 5, 7, 9, 11, 13, 15, 17, and 19 m). Depth for either litter or duff is measured at each location, in cm.**

**File Cansler\_et\_al\_YFDP\_Fuels\_to\_Mass\_Full.csv**

**File Cansler\_et\_al\_YFDP\_Fuels\_to\_Mass\_Paired.csv**

**These two files with identical field definitions compare the pre-fire and post-fire fuel loading in each fuel strata. The file Cansler\_et\_al\_Fuels\_to\_Mass\_Full.csv contains all the data, and the file Cansler\_et\_al\_Fuels\_to\_Mass\_Paired.csv contains the data that was used for the pre-fire to post-fire spatial comparisons.**

**Point: Unique identifier for the sampling point.**

**Year: Year**

**Start: The grid marker used as the starting reference for the 20 m transect.**

**Finish: The grid marker used as the ending reference for the 20 m transect.**

**Time: either prefire or postfire**

**Fuel: The strata of fuel being measured.**

**Depth\_cm: the depth of the strata being measured.**

**Mgperha: The surface fuel loading of the point converted to an aerial amount.**

**Count: the number of pieces of a given category**

**Literature cited**

**Brown, J. K. 1974. Handbook for inventorying downed woody material. USDA Forest Service General Technical Report GTR-INT-16. Ogden, Utah.**

**Cansler, C. A., M. E. Swanson, T. J. Furniss, A. J. Larson, and J. A. Lutz. 2019. Effects of reintroduced fire on surface fuels in a Sierra Nevada mixed-conifer forest. *Fire Ecology.***

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Harmon, M. E., C. W. Woodall, B. Fasth, and J. Sexton. 2008. Woody detritus density and density reduction factors for tree species in the United States: A synthesis. USDA Forest Service General Technical Report GTR-NRS-29. Newton Square, Pennsylvania.

Lutz, J. A., A. J. Larson, M. E. Swanson, and J. A. Freund. 2012. Ecological importance of large-diameter trees in a temperate mixed-conifer forest. *PLoS One* 7:e36131 doi: 10.1371/journal.pone.0036131