

Study areas were selected by Fort Jackson managers and SERDP-funded scientists for scientific investigation and prescribed burning experiments in 2017 and 2018. Selected areas had been burned two years previous and had a relative abundance of Sparkleberry (*Vaccinium arboreum* Marshall) shrub cover in mixed *Pinus palustris* and *Pinus elliotii* stands. Only the 2018 data that met our QA/QC standards are included here, as detailed in Hudak et al. (2020).

Aboveground shrub biomass (live and dead) was sampled within 4 experimental prescribed burn units: 16D1, 16D5, 24A7, and 24B8. The paired pre-fire and postfire plot locations were subjectively selected such that the sparkleberry shrub clumps within each pre- and post-fire plot pair were of similar size and structure. At each of the experimental burn units, there were 4 pre and 4 post burn 3D clip plots. These clip plots used the 3D sampling frame and stratum process (Hawley et al. 2018), however, occupied voxel data were not collected. The plots were clipped from the top of the vegetation down to 10 cm above mineral soil in 10-cm increments.

Metal conduit with reflective tape marked the center of the plot and the 3D sampling frame was placed so the conduit was in the center of the clip plot. Clip plots were 0.5 x 0.5 m in area and extended from ground level to 2 m above ground level. Plots were oriented so that plot edges ran parallel and perpendicular to the four cardinal directions. Differentially-corrected GNSS locations were adjusted by locating the conduits in the TLS point clouds and adjusting locations accordingly. Christie Hawley and Louise Loudermilk were assisted by Kendra Sultzer and Kelsey Smith, contractors with Whitetail Environmental working at Fort Jackson for gathering clip plot data.

See Hawley et al. 2018 for more specific 3D clip plot methods.

Hawley, Christie M.; Loudermilk, E. Louise; Rowell, Eric M.; Pokswinski, Scott. 2018. A novel approach to fuel biomass sampling for 3D fuel characterization. *MethodsX*. 5: 1597-1604.

<https://doi.org/10.1016/j.mex.2018.11.006>.

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