data homogenization processing summary and QC check results: CDR_E133 notes included with key file:

| source | Var_long | var | var_notes |
|-------------------|--|------------------|---|
| location location | Google Directory Network (e.g. LTER, CZO, DIRT, NutNet, etc) | network | CDR_E133 LTER |
| location | Site code (e.g. LUQ) or name | $site_code$ | CDR |
| location | Location name | $location_name$ | Cedar Creek Fire Frequency |
| location | Sand | sand | Experiment Average of Zimmerman and Sartell Series |
| location | Silt | silt | Average of Zimmerman and Sartell Series |
| location | Clay | clay | Average of Zimmerman and Sartell Series |
| location | control samples identifier | $control_id$ | TargetBurnFrequency(burns/year) = 0, sort by plot |
| profile | Extractable Phosphorus_1 | p_ex_1 | Multiple values per plot should be averaged |
| profile | Net N mineralization | n_min | This was measured from 0-15 cm, but I have said that it's 0-20 cm so that it can be aligned with the other data |
| profile | aboveground annual litterfall mass | litterfall_anpp | WW, looks like these a g mass/m2; NOTE 1: Each "point" (replicate) has three values that need to be summed to get total litterfall mass; these litter types are indicated in the column header "type" in the e133_Litter biomass.txt file and include miscellaneous, acorns, and oak leaves. NOTE 2: to determine ANPP, litterfall mass has to be added to aboveground biomass, since litterfall captures only tree ANPP, but herbaceous ANPP is estimated by aboveground biomass (which is only the herbaceous biomass) WW, looks like these a g |
| prome | aboveground biomass | agu | mass/m2; To determine ANPP, litterfall mass has to be added to aboveground biomass, since litterfall captures only tree ANPP, but herbaceous ANPP is estimated by aboveground biomass (which is only the herbaceous biomass) |
| profile | below ground net primary productivity | bnpp | WW, looks like these a g mass/m2; Root ingrowth |

| source | Var_long | var | var_notes |
|---------|------------------------------------|---------------|--|
| profile | root biomass | bgb | WW, looks like these a g mass/m2 |
| profile | root biomass lower diameter cutoff | bgb_lowerdiam | These are defined separately for each diameter class |
| profile | root biomass upper diameter cutoff | bgb_upperdiam | These are defined separately for each diameter class |

files processed:

| type | filename |
|------------------|--|
| provided data | e133_Annual oak leaf canopy litter percent |
| | carbon and nitrogen-ww |
| provided data | e133_Fire_Frequencies |
| provided data | e133_Litter biomass |
| provided data | e133_Plant aboveground biomass data |
| provided data | e133_Root biomass data |
| provided data | e133_Root ingrowth biomass |
| provided data | e133_Root tissue carbon and nitrogen |
| provided data | e133_Soil bulk density |
| provided data | e133_Soil net N mineralization over five |
| | incubation periods |
| provided data | e133_Soil percent carbon and nitrogen |
| provided data | e133_Soil pH |
| provided data | e133_Soil phosphorous |
| homogenized data | e133_Annual oak leaf canopy litter percent |
| | carbon and nitrogen-ww_HMGZD |
| homogenized data | e133_Fire_Frequencies_HMGZD |
| homogenized data | e133_Litter biomass_HMGZD |
| homogenized data | e133_Plant aboveground biomass |
| | $data_HMGZD$ |
| homogenized data | e133_Root biomass data_HMGZD |
| homogenized data | e133_Root ingrowth biomass_HMGZD |
| homogenized data | e133_Root tissue carbon and |
| | nitrogen_HMGZD |
| homogenized data | e133_Soil bulk density_HMGZD |
| homogenized data | e133_Soil net N mineralization over five |
| | incubation periods_HMGZD |
| homogenized data | e133_Soil percent carbon and |
| | $\operatorname{nitrogen_HMGZD}$ |
| homogenized data | e133_Soil pH_HMGZD |
| homogenized data | e133_Soil phosphorous_HMGZD |

variable conversion

| source | var | Var_long | given_unit | target_unit | factor | varNotes |
|-------------------------------|--------------------|---|--------------------------|--------------------------------|-------------------|-------------------------------------|
| profile profile profile | agb agb bnpp | aboveground biomass aboveground biomass belowground net primary productivity | g m-2 g m-2 g/m2/y | gDM m-2 gDM m-2 gDM/m2/y | 0.5 0.5 0.5 | converted converted converted |

| source | var | Var_long | $given_unit$ | $target_unit$ factor | varNotes |
|----------|--------------|--|---------------|-----------------------|---|
| location | clay | Clay | % | percent | NOT |
| location | sand | Sand | % | percent | converted NOT |
| location | silt | Silt | % | percent | converted NOT |
| location | map | Mean Annual Precipitation | mm | mm | converted NOT converted |
| profile | bgb_c | root biomass C | % | mg g-1 | NOT converted |
| profile | bgb_n | root biomass N | % | mg g-1 | NOT |
| profile | lit_c | Fine Litterfall Carbon | % | mg g-1 | NOT |
| profile | lit_n | Fine Litterfall Nitrogen | % | mg g-1 | converted NOT |
| profile | lyr_n_tot | Bulk Layer Total | % | percent | converted NOT |
| profile | lyr_soc | Nitrogen concentration Bulk Layer Organic Carbon (CN analyzer) concentration, inorganic C removed or not present | % | percent | converted NOT converted |
| profile | layer_bot | Layer Bottom | cm | cm | NOT |
| profile | layer_top | Layer Top | cm | cm | converted NOT |
| profile | n_min | Net N mineralization | g/m2/y | mg / g / d | $\begin{array}{c} { m converted} \\ { m NOT} \end{array}$ |
| profile | bgb | root biomass | gDM m-2 | gDM m-2 | ${ m converted} \ { m NOT}$ |
| profile | p_ex_1 | Extractable | mg g-1 | mgP/g | $\begin{array}{c} { m converted} \\ { m NOT} \end{array}$ |
| profile | bgb_lowerdia | Phosphorus_1 m root biomass lower | mm | mm | ${ m converted} \ { m NOT}$ |
| profile | bgb_upperdia | diameter cutoff amroot biomass upper diameter cutoff | mm | mm | converted NOT converted |

QC results: location data

location data checks passed

QC results: profile data, data range

profile data range checks passed

QC results: profile data, data type

profile data type checks passed