Data Dictionary for TreeMap 2016 dataset

Attribute definitions and data sources for "TreeMap2016.tif". All fields derived from FIA tables unless otherwise noted. Variable section references correspond to FIA Database documentation (Burrill et al. 2018).

Column name	Description	Source (table/column/query); Sec = FIADB manual section
CN	Control number for unique TreeMap pixel assignments	Corresponds to PLOT.CN and TREE.PLT_CN in FIADB, and is used to link to the tables and query results listed below.
Count	Count of pixels having CN in TreeMap	Native to TreeMap
Value	TreeMap record number; corresponds to "tm_id" field in the tree table ("TreeMap2016_tree_table.csv")	Native to TreeMap
FORTYPCD	Forest type code, assigned by FIA algorithm	From COND.FORTYPCD (Sec. 2.4.16)
ForTypeName	Forest type description, assigned by FIA algorithm	From REF_FOREST_TYPE.MEANING (Sec. 9.3.2) using FORTYPCD = VALUE (Sec. 9.3.1)
FLDTYPCD	Forest type code, assigned by FIA field crew	From COND.FLDTYPCD (sec. 2.4.17)
FldTypeName	Forest type description, assigned by FIA field crew	From REF_FOREST_TYPE.MEANING (Sec. 9.3.2) using FLDTYPCD = VALUE (Sec. 9.3.1)
STDSZCD	Stand size code, assigned by FIA algorithm	From COND.STDSZCD (Sec. 2.4.20)
FLDSZCD	Stand size code, assigned by FIA field crew	From COND.FLDSZCD (Sec. 2.4.21)
BALIVE	Live tree basal area (sq ft)	From COND.BALIVE (Sec. 2.4.51)
CANOPYPCT	Live canopy cover (percent)	From Forest Vegetation Simulator
STANDHT	Height of dominant trees (ft)	From Forest Vegetation Simulator
ALSTK	All live tree stocking (percent)	From COND.ALSTK (Sec. 2.4.53)
GSSTK	Growing-stock stocking (percent)	From COND.GSSTK (Sec. 2.4.54)
QMD_RMRS	Stand quadratic mean diameter	From COND.QMD_RMRS (Sec. 2.4.136)
SDIPCT_RMR	Stand density index (percent of maximum)	From COND.SDIPCT_RMR (Sec. 2.4.139)

TPA_LIVE	Number of live trees per acre	Query; Sum TREE.TPA_UNADJ WHERE (((COND.COND_STATUS_CD)=1) AND ((TREE.STATUSCD)=1) AND ((TREE.DIA)>=1))
TPA_DEAD	Number of standing dead trees per acre (DIA >5")	Query; Sum TREE.TPA_UNADJ WHERE (((COND.COND_STATUS_CD)=1) AND ((TREE.STATUSCD)=2) AND ((TREE.DIA)>=5) AND ((TREE.STANDING_DEAD_CD)=1))
VOLCFNET_L	Volume, live, cubic feet per acre	Query Sum VOLCFNET*TPA_UNADJ WHERE (((COND.COND_STATUS_CD)=1) AND ((TREE.STATUSCD)=1))
VOLCFNET_D	Volume, standing dead, cubic feet per acre	Query Sum VOLCFNET*TPA_UNADJ WHERE (((COND.COND_STATUS_CD)=1) AND ((TREE.STATUSCD)=2) AND ((TREE.DIA)>=5) AND ((TREE.STANDING_DEAD_CD)=1))
VOLBFNET_L	Volume, live, sawlog board feet per acre (log rule: Int'l ¼ inch)	Query Sum VOLBFNET * TPA_UNADJ WHERE (((TREE.TREECLCD)=2) AND ((COND.COND_STATUS_CD)=1) AND ((TREE.STATUSCD)=1))
DRYBIO_L	Dry live tree biomass, above ground (tons per acre)	Query; Sum (DRYBIO_BOLE, DRYBIO_TOP, DRYBIO_STUMP, DRYBIO_SAPLING, DRYBIO_WDLD_SPP) /2000*TPA_UNADJ WHERE (((COND.COND_STATUS_CD)=1) AND ((TREE.STATUSCD)=1))
DRYBIO_D	Dry standing dead tree biomass, above ground (tons per acre)	Query; Sum (DRYBIO_BOLE, DRYBIO_TOP, DRYBIO_STUMP, DRYBIO_SAPLING, DRYBIO_WDLD_SPP) /2000*TPA_UNADJ WHERE (((COND.COND_STATUS_CD)=1) AND ((TREE.STATUSCD)=2) AND ((TREE.DIA)>=5) AND ((TREE.STANDING_DEAD_CD)=1))
CARBON_L	Carbon, live above ground (tons per acre)	Query; Sum (DRYBIO_BOLE, DRYBIO_TOP, DRYBIO_STUMP, DRYBIO_SAPLING, DRYBIO_WDLD_SPP) / 2 /2000*TPA_UNADJ WHERE (((COND.COND_STATUS_CD)=1) AND ((TREE.STATUSCD)=1))
CARBON_D	Carbon, standing dead (tons per acre)	Query; Sum (DRYBIO_BOLE, DRYBIO_TOP, DRYBIO_STUMP, DRYBIO_SAPLING, DRYBIO_WDLD_SPP) / 2 /2000*TPA_UNADJ WHERE (((COND.COND_STATUS_CD)=1) AND

		((TREE.STATUSCD)=2) AND ((TREE.DIA)>=5) AND ((TREE.STANDING_DEAD_CD)=1))
CARBON_DWN	Carbon, down dead (tons per acre)	From COND. CARBON_DOWN_DEAD (Sec. 2.4.67)

Attribute definitions and sources for TreeMap2016_tree_table.csv. All fields derived from FIA tables unless otherwise noted. Variable section references correspond to FIA Database documentation (Burrill et al. 2018).

Column name	Description	Source (table/column/query); Sec = FIADB manual section
tm_id	TreeMap record number; corresponds to "Value" field in the TreeMap raster ("TreeMap2016.tif")	Native to TreeMap dataset
CN	Control number for unique TreeMap pixel assignments	Corresponds to PLOT.CN and TREE.PLT_CN in FIADB, and is used to link to the tables and query results listed below.
STATUSCD	A code that indicates whether the tree is live (1) or dead (2) when the plot was measured.	From TREE.STATUSCD (Sec.3.1.15)
TPA_UNADJ	Number of trees per acre, based on the scale of the plot design.	From TREE.TPA_UNADJ (Sec. 3.1.111)
SPCD	Tree species code	From TREE.SPCD (Sec. 3.1.16)
COMMON NAME	Common name	From REF_SPECIES.COMMON_NAME (Sec. 9.5.2)
SCIENTIFIC_NAME	Scientific name	From REF_PLANT_DICTIONARY (Sec. 9.6.4)
SPECIES_SYMBOL	USDA PLANTS Database code	From REF_SPECIES.SPECIES_SYMBOL (Sec. 9.5.7)
DIA	Tree diameter (inches), measured at 4.5 feet above ground for timber species and at the ground line for woodland species.	From TREE.DIA (Sec. 3.1.18)
HT	Tree's total height (ft) from the tip of the apical meristem to the ground. The actual height may be different when the main stem is broken, in which case the total height is estimated.	From TREE.HT (Sec. 3.1.20)

ACTUALHT	The height of the tree (ft) from the ground level to the highest point of the tree still present.	From TREE.ACTUALHT (Sec. 3.1.22)
CR	Compacted crown ratio, or the percent of the bole with healthy foliage.	From TREE.CR (Sec. 3.1.24)
SUBP	Subplot number (plots are composed of four subplots)	From TREE.SUBP (Sec. 3.1.9)
TREE	Tree number, which corresponds to a unique identifier on a subplot.	From TREE.TREE (Sec. 3.1.10)
AGENTCD	Cause of death, including insect, fire, etc., where applicable.	From TREE.AGENTCD (Sec. 3.1.27)

References

Burrill, Elizabeth A., Andrea M. Wilson, Jeffrey A. Turner, Scott A. Pugh, James Menlove, Glenn Christiansen, Barbara L. Conkling, and Winne David. 2018. "The Forest Inventory and Analysis Database: Database Description and User Guide Version 8.0 for Phase 2." [Online]. http://www.fia.fs.fed.us/library/database-documentation/