**ForC Cheat Sheet**

**Table 1**: Description of all column names found in ForC\_simplified

|  |  |  |  |
| --- | --- | --- | --- |
| Col. | Source.Table | Field | Description |
| 1/A | MEASUREMENTS | measurement.ID | Unique identifier for each record in the measurements table. |
| 2/B | MEASUREMENTS | sites.sitename | Site identifier, sufficient to uniquely identify the site within the paper. |
| 3/C | MEASUREMENTS | plot.name | Unique plot identifier name for the plot in which the measurement was made. Links to HISTORY and PLOTS table. |
| 4/D | MEASUREMENTS | stand.age | Age of stand at time of measurement as reported in the original publication or calculated based on the date of initiation of forest regrowth. When the publication reports a range of ages, the mean is recorded. For stands that were reported as primary/old-growth/mature/ intact stands, the stand.age is recorded as "999". WARNING: The "999" designation may include some older secondary stands that were designated "mature" or some partially disturbed primary stands (e.g., partially logged). |
| 5/E | MEASUREMENTS | dominant.life.form | Dominant life form at time of measurement, with categories including "woody" (trees, seedlings, or shrubs), "grass", and "woody+grass" (i.e., savanna). |
| 6/F | MEASUREMENTS | dominant.veg | Code used to identify plant functional type of dominant vegetation at time of measurement. For trees, groupings are based on leaf type (broadleaf /needleleaf/ mixed) and phenology (deciduous/ evergreen/ mixed), and dominance is defined based on an 80% threshold (if given). If vegetation is a mix of trees and other vegetation, codes refer to the functional type of trees. For vegetation with no significant tree species component, groupings are by life form, if any. |
| 7/G | MEASUREMENTS | variable.name | Code name for variable sampled. |
| 8/H | MEASUREMENTS | date | Date on which measurement was made. Usually found as the year of measurement in the methods section, or, when unavailable, approximated as the year before publication. |
| 9/I | MEASUREMENTS | start.date | Date on which measurements were started. |
| 10/J | MEASUREMENTS | end.date | Date on which measurements ended. |
| 11/K | MEASUREMENTS | mean | Mean value of measurement recorded. Units depend on the variable and can be found in the VARIABLES table. |
| 12/L | MEASUREMENTS | min.dbh | Minimum diameter (typically DBH, diameter at breast height) of tree stems included in the measurement. "0" indicates that all stems were included. |
| 13/M | MEASUREMENTS | citation.ID | Citation ID for publication from which measurements were obtained. Citation.ID is in the form [last name of first author]\_[year]\_[first letter of first four words of title] and links to citation.ID in the citations table. |
| 14/N | SITES | country | Country |
| 15/O | SITES | lat | Latitude, where negative values indicate S hemisphere |
| 16/P | SITES | lon | Longitude, where negative values indicate W hemisphere |
| 17/Q | SITES | masl | Elevation in meters above sea level. When a range is given, midpoint is reported. |
| 18/R | SITES | mat | Mean annual temperature |
| 19/S | SITES | map | Mean annual precipitation |
| 20/T | SITES | geographic.area | Groups geographically proximate sites, where proximity was defined using a hierarchical cluster analysis on the distance matrix of the sites and a cutoff of 25km (R script available in the Github scripts folder). |
| 21/U | SITES | biogeog | Biogeographical region, extracted from map of (Olson et al. 2001) |
| 22/V | SITES | Koeppen | Koppen-Geiger classification, extracted from the ESRI Koppen-Geiger map (http://www.arcgis.com/home/item.html?id=7a53584fa55643df969f93cec83788e1). |
| 23/W | SITES | FAO.ecozone | FAO global ecological zones classification, extracted from FAO's GeoNetwork (http://www.fao.org:80/geonetwork). |
| 24/X | PLOTS | plot.area | Area of plot or combined area of replicate plots. For forest monitoring plots that change in area, this should be the most recent area. Note that area.sampled is recorded separately in the measurements table. |
| 25/Y | PLOTS | year.establishment.oldest.trees | Year of establishment of the oldest trees or of a keystone/ dominant tree taxa. Refers to the record in HISTORY that is indexed in etablishment.ID. |
| 26/Z | PLOTS | regrowth.hist.type | Type of forest (re)growth--e.g., natural succession or planted--following the most recent severe disturbance, if known. Refers to the record in HISTORY that is indexed in regrowth.ID. |
| 27AA | PLOTS | regrowth.year | Year of forest (re)growth following the most recent severe disturbance, if known. Refers to the record in HISTORY that is indexed in regrowth.ID. |
| 28AB | PLOTS | dist.mrs.hist.type | Type of the most recent severe/ stand clearing disturbance or event in a disturbance sequence, if any. Refers to event indexed in dist.mrs.ID. |
| 29AC | PLOTS | dist.mrs.yr | Year of the most recent severe/ stand clearing disturbance or event in a disturbance sequence. For a multi-year disturbance (e.g., agricultural use), the starting year is given. Refers to event indexed in dist.mrs.ID. |
| 30AD | None | managed | Indicates whether plot has been managed. Plots are counted as managed if they have any records of management actions manipulating CO2, temperature, hydrology, nutrients, or biota (records in HISTORY, summarized in PLOTS) or if their site or plot name contained the word “plantation”, "planted", "managed", "irrigated" or "fertilized" |
| 31AE | None | disturbed | Indicates whether plot has undergone significant disturbance since the establishment of the oldest cohort. We removed stands that had undergone anthropogenic thinning or partial harvest ("Cut" or "Harvest" codes) unless this was very minor (mortality <<100%). Retains sites that were grazed or had undergone low severity natural disturbances (<10% mortality) including droughts, major storms, fires, and floods. |
| 32AF | None | history.no.info | Indicates whether plot has 1- no info about history ('No.info' in hist.cat field of HISTORY table) or 0- some info about history. |
| **NOTE** | **NOTE** | **NOTE** | **Columns 30-32 are not included in ForC\_simplified\_edu** |

**Table 2**: Explanation of all variables in the variable.name column (7/G)

|  |  |  |
| --- | --- | --- |
| Variable | Description | Variable name(s)\* |
| *Annual fluxes* |  |  |
| NEE | net ecosystem exchange or net ecosystem production (- indicates C sink) | NEE, NEP |
| GPP | gross primary production (NPP + Rauto) | GPP |
| NPP | net primary production (ANPP + BNPP) | NPP\_[1-5] |
| ANPP | aboveground NPP | ANPP\_[0-2] |
| ANPPwoody | woody production (stem growth + branch turnover) | ANPP\_woody |
| ANPPstem | stem production | ANPP\_woody\_stem |
| ANPPbranch | branch turnover | ANPP\_woody\_branch |
| ANPPfoliage | foliage production, typically estimated as annual leaf litterfall | ANPP\_foliage |
| ANPPlitterfall | litterfall, including leaves, reproductive structures, twigs, and sometimes branches | ANPP\_litterfall\_[0-2] |
| ANPPrepro | production of reproductive structures (flowers, fruits, seeds) | ANPP\_repro |
| ANPPfolivory | foliar biomass consumed by folivores | ANPP\_folivory |
| woody mortality | aboveground biomass of trees that died | woody.mortality\_ag |
| BNPP | belowground NPP (BNPPcoarse+ BNPPfine) | BNPP\_root |
| BNPPcoarse | coarse root production | BNPP\_root \_coarse |
| BNPPfine | fine root production | BNPP\_root \_fine |
| Reco | ecosystem respiration | R\_eco |
| Rauto | autotrophic respiration (Rauto-ag+ Rroot) | R\_auto |
| Rauto-ag | aboveground autotrophic respiration (i.e., leaves and stems) | R\_auto\_ag |
| Rroot | root respiration | R\_auto\_root |
| Rsoil | soil respiration (Rhet-soil + Rroot) | R\_soil |
| Rhet-soil | heterotrophic soil respiration | R\_het\_soil |
| *Stocks* |  |  |
| biomass | total live biomass | biomass |
| aboveground biomass | aboveground live biomass | biomass\_ag |
| woody aboveground biomass | woody component of aboveground biomass | biomass\_ag\_woody |
| foliage biomass | foliage biomass | biomass\_ag\_foliage |
| root biomass | total root biomass | biomass\_root |
| coarse root biomass | coarse root biomass | biomass\_root\_coarse |
| fine root biomass | fine root biomass C | biomass\_root\_fine |
| deadwood | deadwood (deadwood\_standing + deadwood\_down) | deadwood |
| standing deadwood | standing dead wood | deadwood\_standing |
| down deadwood | coarse woody debris. | deadwood\_down |
| organic layer | organic layer (“forest floor”) | organic.layer |