*1)* ***Folder Name:*** *RW/PlotsBySpecies*

***Sites:*** *GE1, GE2, GE3*

***Files:*** *(Site)\_(Species).rwl*

***Summary:*** Data is organized across plots (GE1, GE2, GE3) and species (FAGR, ACRU, ACSA, OSVI, BEPA, QURU, QUMO, PIST, QUAL, AMAR, BELE; see below for example of abbreviations). This folder contains twenty two raw ring-width (.rwl) files for each species sampled at all plots.

**Species abbreviation:**

First two letters = genus; Last two letter = species

Example: ACRU = *Acer rubrum* (red maple)  
 ACSA = *Acer saccharum* (sugar maple)

FAGR = *Fagus grandifolia* (American beech)

QURU = *Quercus rubra* (red oak)

BEPA = *Betula papyrifera* (paper birch)

BELE = *Betula lenta* (black birch)  
 PIST = *Pinus strobus* (eastern white pine)

QURU = *Quercus rubra* (red oak)

QUAL = *Quercus alba* (white oak)

QUMO = *Quercus montana* (chestnut oak)

OSVI = *Ostrya virginiana* (American hophornbeam)

AMAR =  *Amelanchier arborea* (common serviceberry)

***Data format:*** Measurements in units of 0.001 mm for the thickness of tree ring for each year. Each file consists of all the measurements for usable cores and portions of usable cores for a given plot. Some cores had too much rot or other issues to be useful. The end of each series is indicated by the -9999 sentinel. Missing rings are designated by 0, indicating no growth for that year. The 10 values following the decade are the annual measurements for the 10 years of that decade. The first and last decade rows for each core may contain less than 10 values depending on when each tree was cored and the year of the first measurable ring. The standard tree-ring format, aka Tucson format, is:

Core ID is found in the columns (or spaces) 1-7

- Formatted in **SSSTTTC** (S = Site ID, T = Tree number, C = Core ID).

- Example: **GE1001n** is Goose Egg Plot 1 (**GE1**), Tree 1 (**001**), Core direction north (**n**).

Decade columns 9-12

- First year measured for each row

Data Values columns 13-73, 6 columns/measurement, Fortran Format: 10F6.3

- Up to 6 digits per annual measurement in units of 0.001 mm.

- Example: a value of 425 = 0.425 mm; 1192 = 1.192 mm; etc.

***Full Series Example for Lyford Plot 1, Tree 2, north core:***

LF102N 1932 3974 3135 2503 2504 2320 2747 2600 1573

LF102N 1940 2805 2562 3194 3954 4994 3460 3414 4829 5041 4443

LF102N 1950 5673 3804 3863 3838 3948 4626 3922 4583 3969 3224

LF102N 1960 3205 3458 3246 3426 3767 3468 3237 3395 3632 4144

LF102N 1970 2801 2848 2757 2845 2442 2602 2345 2355 1764 1910

LF102N 1980 1842 1195 1580 1424 1897 2030 1506 1888 1974 2220

LF102N 1990 1758 1676 1506 1782 2114 1590 1562 1461 1772 1349

LF102N 2000 1611 1608 1712 1175 1237 1102 1367 1595 1260 1141

LF102N 2010 1527 1294 1516 -9999

- ***First row***: Start of series for that core. Measurements are present for the years 1932-1939.

- ***Second row***: Continuation of measurements for next decade (1940-1949)

….

- ***Last row***: End of series; measurements for years 2010-2012;  
 -9999 in 2013 indicates end of series (no measurement for 2013 and beyond)

***NOTE:*** Data can be read as a space-delimited file in most coding languages. In R, package *dplR* has built-in function *read.rwl* that converts .rw files to a data frame (rows become years; columns become ring-width series).

*2)* ***File Name:***  *GooseEggAllPlots.csv*

***Summary:***Field notes typed into a spreadsheet format (both Excel Spreadsheet and comma-separated values). First tab (Field\_Notes) contains raw field notes; second tab (Saplings) contains sapling counts for each plot; third tab (Comments) contains tree-specific notes recorded in the field. CSV file just contains data from Field\_Notes tab for ease of data processing. Columns 7 and 8 in Field\_Notes tab place each tree in space from the PalEON plot centers.

***Data Format:***First two rows of metadata describing plot.

Starting at row 4 there are eleven columns of field data:

**Column 1:** Site ID (Site)

**Column 2:** Tree Number

**Column 3:** Species Identifier (Species)

First two letters = genus; Last two letter = species

Example: ACRU = *Acer rubrum*

**Column 4:** Canopy position (Canopy)

suppressed, intermediate, codominant, or dominant

**Column 5:** Alive [Li], Snag [Sn], or Log [Lo] (Status)

**Column 6:** Diameter at breast height in cm (DBH)

**Column 7:** Distance from plot center in m (Distance)

**Column 8:** Number of degrees from due north (Azimuth)

North = 0 º; East = 90 º; South = 180 º; West = 270 º

**Column 9:** Decay class 1-5; dead trees only (Decay)

**Column 10:** Fieldhand responsible for sample (Initials)

**Column 11:** Core directions (Cores)

***Additional Notes:***

*\* GE1 Trees 47 and 93 (ACRU), GE2 Trees 7 and 19 (QURU), and GE3 Tree 8 (FAGR) are missing from the ring-width files. The cause of the missing data is accounted for in the “Comments” tab of the field notes file (GooseEggAllPlots.xls).*

*\* GE2 Trees 32 and 37 (PIST) were unaccounted for after fieldwork.*

*\*On January 30, 2019 Neil sent updated files saying: “Tessa has dated and measured up Goose Egg plot 1, tree 62, cores S and E. It was a dead tree, was hollow, and does not date well with the population. It does date well with itself. I think we might have recovered about 1/3 of the radius at most. Yet, the inner ring is 1795. Extremely slow growth for >two centuries. See fig.*

*Attached is the updated GEQUAL ring width file and ‘logsheet' and ‘allplots' CSV files.*

*Jody - can you update the wiki with these files. Anything else needed from me for that?”*

*Jody – updated the files and uploaded to the wiki on 2-11-19*