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

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

***Summary:*** Data is organized across plots (NRP1, NRP2, NRP3, NRP4) and species (ACRU, ACSA, BEAL, BELE, BEPA, FAGR, FRAM, PIST, PRSE, QURU, TSCA; see below for example of abbreviations). This folder contains eighteen raw ring-width (.rwl) files for each species sampled at all plots. Raw ring-width files contain data from 13-, 20-, and 30-m nests, indicated within field notes file (*NorthRoundPondAllPlots.csv*).

**Species abbreviation:**

First two letters = genus; Last two letter = species

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

BEAL = *Betula alleghaniensis* (yellow birch)  
 BELE = *Betula lenta* (black birch)  
 BEPA = *Betula papyrifera* (paper birch)

FAGR = *Fagus grandifolia* (American beech)  
 FRAM = *Fraxinus americana* (white ash)

PIST = *Pinus strobus* (eastern white pine)

PRSE = *Prunus serotina* (black cherry)

QURU = *Quercus rubra* (red oak)

TSCA = *Tsuga canadensis* (eastern hemlock)

***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) 1-8

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

- Example: **NRP1001n** is North Round Pond Plot 1 (**NRP1**), 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 North Round Pond Plot 1, Tree 2, north core:**

NRP1002n1932 3974 3135 2503 2504 2320 2747 2600 1573

NRP1002n1940 2805 2562 3194 3954 4994 3460 3414 4829 5041 4443

NRP1002n1950 5673 3804 3863 3838 3948 4626 3922 4583 3969 3224

NRP1002n1960 3205 3458 3246 3426 3767 3468 3237 3395 3632 4144

NRP1002n1970 2801 2848 2757 2845 2442 2602 2345 2355 1764 1910

NRP1002n1980 1842 1195 1580 1424 1897 2030 1506 1888 1974 2220

NRP1002n1990 1758 1676 1506 1782 2114 1590 1562 1461 1772 1349

NRP1002n2000 1611 1608 1712 1175 1237 1102 1367 1595 1260 1141

NRP1002n2010 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 .rwl files to a data frame (rows become years; columns become ring-width series).

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

***Summary:***Field notes typed into a spreadsheet format. Jody added the data from NRP Plot 4 which Neil sent updated to have the field notes from trees 120-210 renumbered. All this required was to change previously overlapping numbers between the living and dead trees. There were no cores for the dead trees in plot 4. They were beyond use/decay/etc. Columns 7-10 place each tree in space from the PalEON plot centers. Columns 11-13 further characterize downed woody debris (Status: Lo, Sn, St, Sh, or dead).

***Field\_Notes tab***

***Data Format:***First three 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 or Dead Status(Status)

Log (Lo), Snag (Sn), Stump (St), or stump hole (Sh)

Listed as *dead* if status is unknown

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

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

**Column 8:** Distance from plot center in m of top (Distance (top))

**Column 9:** Number of degrees from due north of base (Azimuth (base))

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

**Column 10:** Number of degrees from due north of top (Azimuth (top))

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

**Column 11:** Orientation of fallen log in degrees (Orientation)

**Column 12:** Length of fallen log in meters (Length)

**Column 13:** Decay Class 1-5 (Decay)

***Additional Notes:***

*\*NRP1 Tree 23, 32, and 47 (FAGR), NRP2 Trees 4 and 17 (ACSA), and NRP2 Tree 24 (BEAL) are missing from the ring-width files. The causes of the missing data are accounted for in the “Comments” tab of the field notes file (NorthRoundPondAllPlots.xls).*

*\*Please note partial rings exist in many series. Details of the range of years measured for each series are included in the core notes (NorthRoundPondAllPlotsLogsheet.xls).*