

Dendrochronology Activity

Activity goal: to identify and date the fire scars contained in your sample.

Instructions:

1. Visually inspect your sample to identify the **outer ring** (next to the bark, if present)
2. Locate the inner-most ring on the sample with a pencil dot on it (this is your **zero ring**)
3. Identify each **fire scar** contained in your sample
4. Identify other **pencil dots** on your sample moving out from your zero ring (one dot every 10 rings, two dots every 50 rings, and three dots every 100 rings)
 - = every 10 rings
 - = every 50 rings
 - = every 100 rings
5. Moving outward from the zero ring, record the **ring number of each fire event** (the ring on the inner side of a scar) in the “Historical Fire Events” table on the data sheet.
6. Record the **total number of rings** in your sample under “Calculating Zero Ring Date” on the data sheet (*if it is difficult to count all the rings, or you are running out of time, you can look under the post-it note on your sample for the total number of rings*)
7. Calculate the **zero ring date** in the space provided on the data sheet by **subtracting the total number of rings from the outer ring year (2008)**. Record this number in the “Zero Year” box on the data sheet.
8. Determine the **fire year** of each fire event by adding the ring number of that fire scar to the date of the zero year. Record in “Fire Year” column below.
9. **Pooling class data:** Record the data from your sample on the **master chronology** on the butcher paper timeline on the wall:
 - ✓ Draw a **horizontal line** representing your sample ring series from your zero year to 2008 (next to your sample ID on the y-axis)
 - ✓ Make a **small vertical hash mark** on the year of each recorded fire (find the timeline on the x-axis)

Dendrochronology Data Sheet

Sample ID number: _____

Team member(s): _____

Historical Fire Events:

Fire Event Number	Ring Number	Fire Year (zero year + ring #)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

Calculating Zero Ring Date:

$$\begin{array}{r} \text{Year Sampled} \longrightarrow 2008 \\ - \text{Total Number of Rings} \longrightarrow - \underline{\hspace{2cm}} \\ \hline = \text{Zero Year: } \boxed{\hspace{2cm}} \end{array}$$