Reading your tree core samples:
- The space between ring lines corresponds to one year of tree growth
- A growth ring is called a xylem
- Thicker rings indicate wetter years (good growing conditions)
- Thinner rings indicate drier years (not-so-good growing conditions)

**Warm-up exercise: AA Core Sample**

Using the local dendrochronology xylem catalog below find the year of the last annual ring in core sample AA.

**Step 1:** Slide AA sample to match all lines at once

- **2,000 AD**
- **1,950 AD**

**Step 2:** Found a total match!

- **2,000 AD**
- **1,950 AD**

**Step 3, method 1 – math required (I know - arrrgghhh!):** Find the nearest year marker label, and then start your count at 1 there and count the rings (space between the lines) before you reach the last annual ring on your core sample.

Using 2,000 AD label: If 2,000 AD is 1, then I count 17 rings to the right, not including the last ring of my sample. So 2,000 AD – 17 rings = 1,983 AD.
Using 1,950 AD label: The ring after 1,950 AD is 1, I count 33 rings to the left, including the last ring of my sample. So 1,950 AD + 33 rings = 1,983 AD.

**Step 3, method 2 – NO math required (yay!):** Find the nearest year marker label, and then start your count at that time and increment by 1 year for each ring (space between the lines) after it until you reach the last annual ring on your core sample.

Using 2,000 AD label: The ring to the right of 2,000 AD is 1,999 AD, so I just count backward until I land in the last ring of my sample, so 1,983 AD.
Using 1,950 AD label: The ring to the left of 1,950 AD is 1,951 AD, so I just count forward until I land in the last ring on my core sample, so 1,983 AD.

**Note:** Remember to be careful with AD versus BC xylem catalogs, you have to add/subtract differently 😊