

DENDROCHRONOLGY LAB

DIRECTIONS:

- Go to danling.com and click on Earthling | S.T. Geology
- Under UNIT 3, click the link for "Dendrochronology Lab"

1. a. Approximately how old is this tree? \_\_\_\_\_

b. Where are the oldest rings? \_\_\_\_\_

2. a. Which rings indicate years of relatively abundant water? \_\_\_\_\_

b. Which rings might indicate years of drought? \_\_\_\_\_

3. Other than forest fires, what else might tree rings be used to date? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. How old is this tree? (Core 1) \_\_\_\_\_

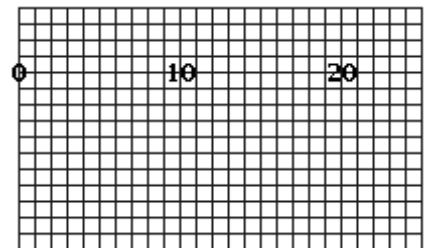
5. How old is this tree? (Core 2) \_\_\_\_\_

6. How do the banding patterns of the two trees compare? \_\_\_\_\_

\_\_\_\_\_

7. View the tutorial movie (try grabbing the sliding handle to reverse and replay the movie). Create your skeleton plot on the graph at right. (NOTE: Plot the core at the bottom of the screen - not the tutorial).

8. a. How do the skeleton plots compare? \_\_\_\_\_

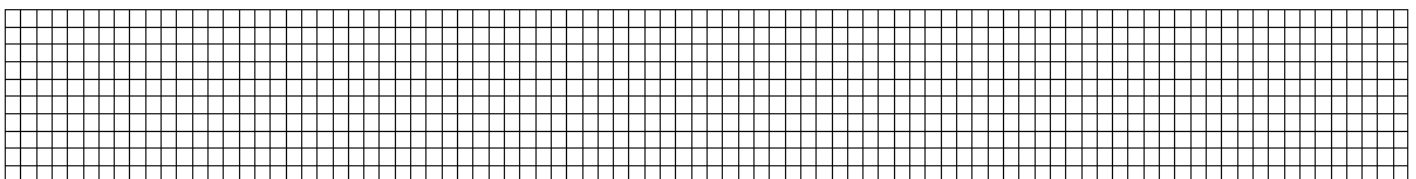


b. Why is it important to show the data on graphs instead of comparing the actual tree cores?

\_\_\_\_\_

\_\_\_\_\_

9. a. Compile the master chronology on the graph paper below. (NOTE: this graph has more columns than the one on your screen).



b. From your chronology, list the dates of at least five years when droughts occurred.

\_\_\_\_\_

10. What year was tree sample A cut? \_\_\_\_\_
11. a. What year did tree sample B begin growing? \_\_\_\_\_
- b. What if you found a sample of wood and constructed a skeleton plot for it, but it didn't match any patterns on the master chronology. What could you infer about the wood? \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- c. How might you go about finding its age? \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



Ancient bristlecone pines (*Pinus longaeva*) in the Snake Range of Nevada, a few meters away from the remains of the *Currey Tree* (or "*Prometheus*"), the oldest known tree of any species (4,862 years). The *Currey Tree* was, unfortunately, cut down by its discoverer, with the permission of the U.S. Forest Service, in 1964, one of the saddest moments in the history of dendrochronology. (photo ©2001 Peter Brown)