Handout M18 & H17-2. You find an older cohort!

Name: _______________________

At right is a copy of the stand history diagram that you completed in class. The trees are in a different order, but their timelines are the same. A red outline shows the cohort of trees that you identified in class.

Suppose you go back to the place in central Oregon where those 11 cores were collected and find 8 fallen logs buried in the ground. These were not sampled in the earlier study, so they provide new information. The logs look very old. Their bark is all gone, but they are not rotten. Many of them have black char on the outside of the wood. You collect increment cores from all of them. You return to the lab and cross-date them to find the years of their earliest and most recent annual rings. Then you add your new data to the class’s stand history diagram. Now it looks like this:

You have found evidence that there was a cohort of trees that started back in the 1700s! Call it the “old cohort.” Write a letter to the scientists who did the original research. In the letter, explain:

- When your “old cohort” started growing (give a range of dates)
- What may have caused the old cohort to start growing (do you have any evidence for that?)
- When the old cohort died
- What probably caused so many trees in the old cohort to die at one time (do you have any evidence for that?)
- How your discovery might explain what caused the 1887-1906 cohort of trees (the ones in the gray shaded box) to start growing.