

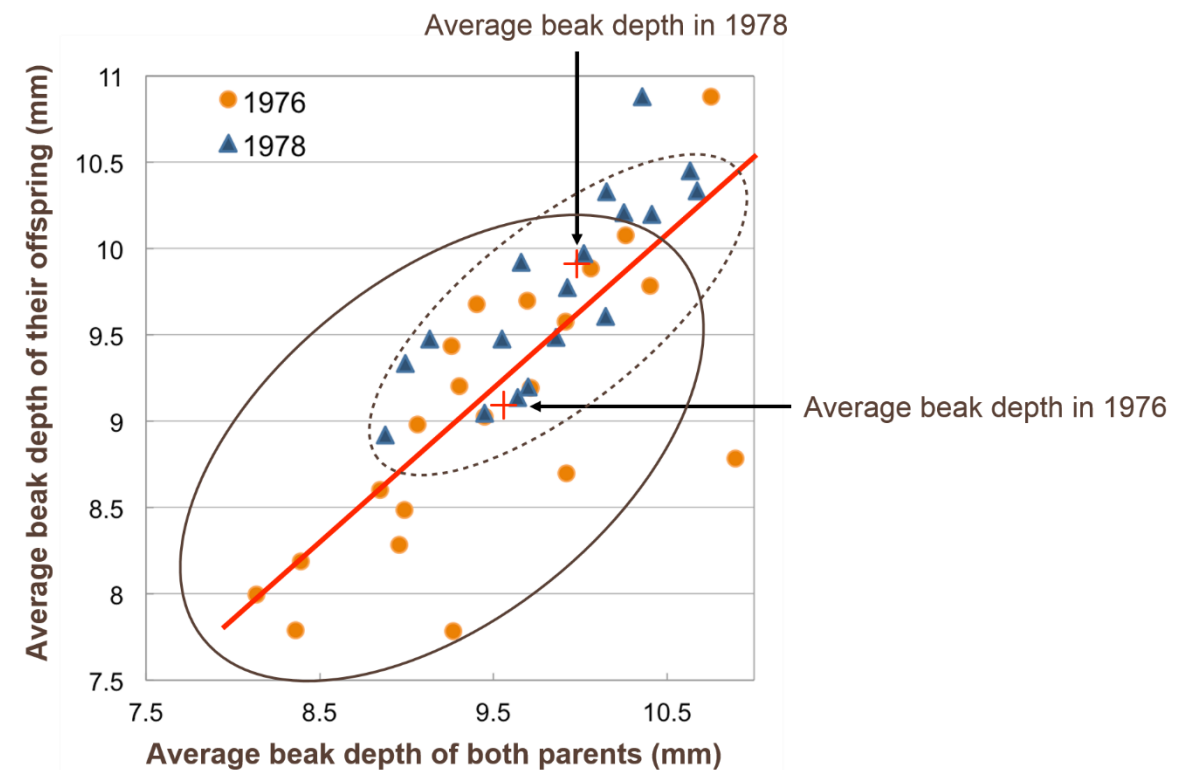
Teacher Notes: Alternative Heredity Graph

Many teachers find the graph displaying trait values for parents and offspring (as shown at right) to be the most challenging for students to grapple with. Unpacking all of the information on this graph may in fact be too much in some classrooms as the target we are aiming for is an understanding that heritability of beak size is a key component of the story on Daphne Major.

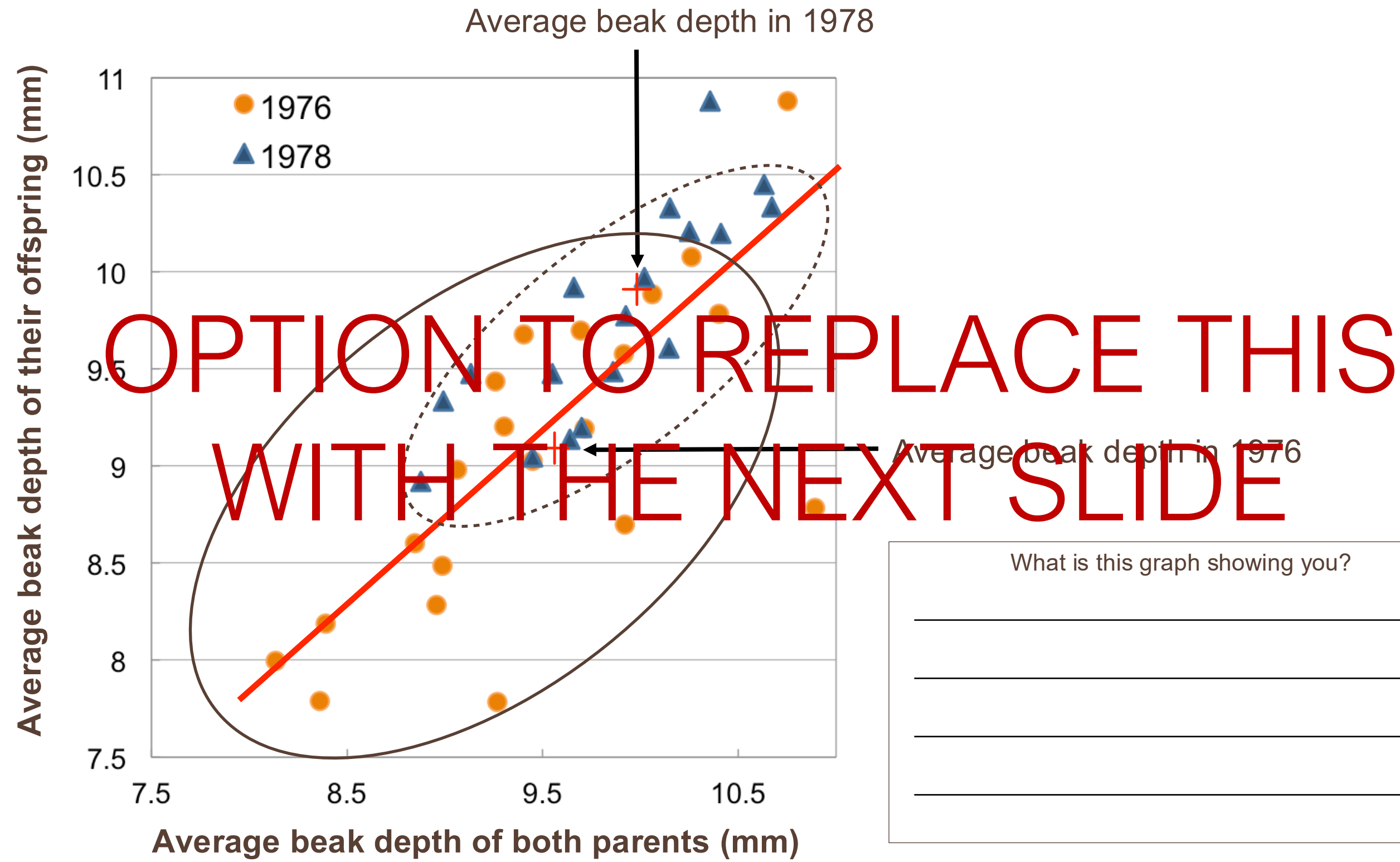
Since most students have not seen this kind of a regression plot before (y against x), you will likely need to walk through it with them—

especially considering we are tracking the *average* values of the parent trait (averaged between mom and dad) against the average among all of the offspring.

All of that may be enough for the class without the extra annotations and the separation of data points between 1976 and 1978. With the more complex graph, students see yet another representation of the shift in the trait value due to the drought. However, you may find it much more productive to stick with this simpler version of the graph. This piece of the model—that the trait must be heritable in order for natural selection to act—is often left out of the initial series of explanations students generate in Learning Segment 05. Don't fret, there are opportunities to revisit this idea in Learning Segment 06 if it does not emerge through interpretation of this graph.

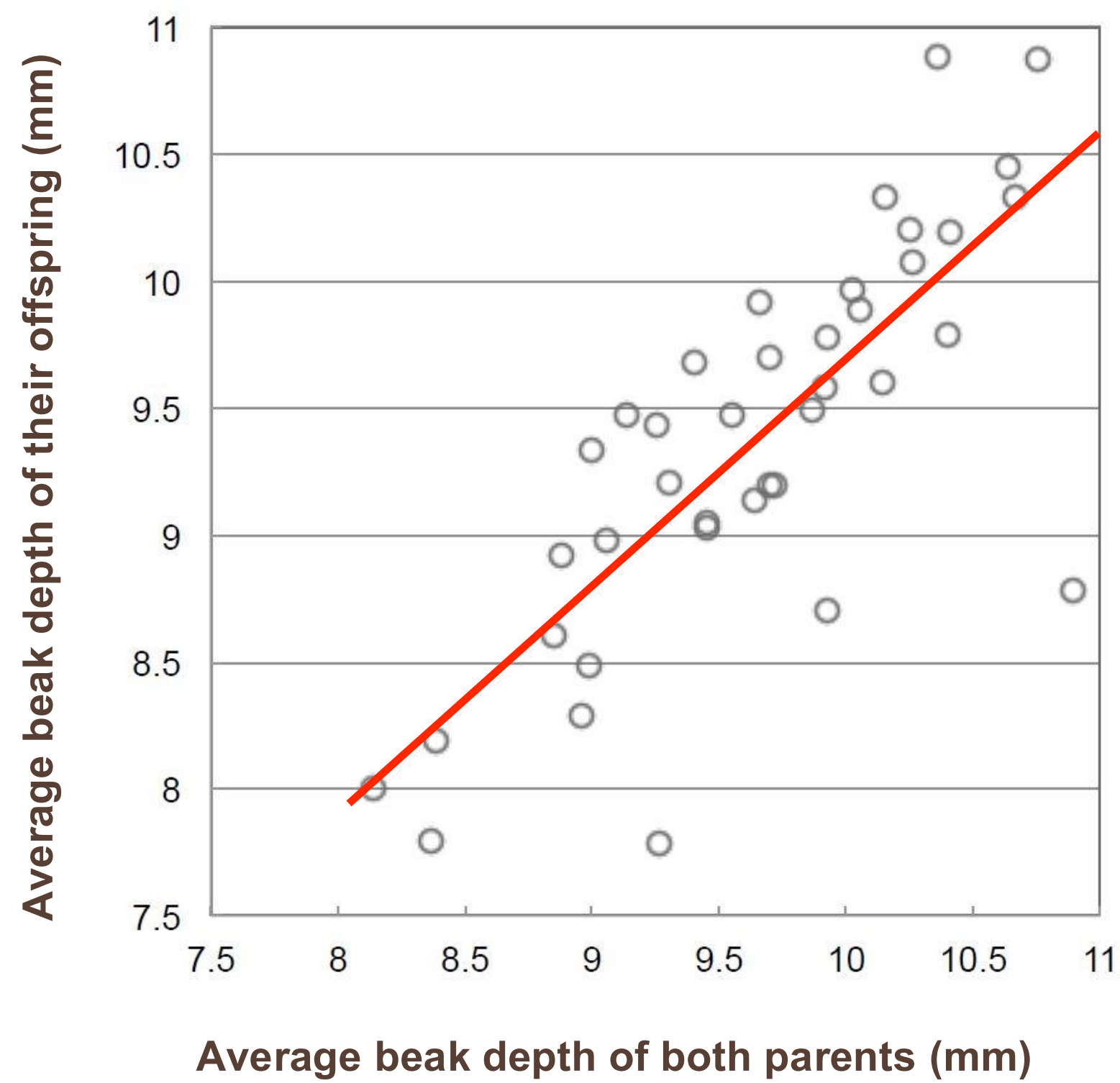


Beak depth of parents and their offspring



What is this graph showing you?

Beak depth of parents and their offspring



What is this graph showing you?
