

Don't forget to have your worksheet stamped at the front desk when you finish!



SEYMOUR CENTER AT LONG MARINE LAB

Interpreting Data: Otoliths

Part 1: Questions about the exhibit

1. What is an otolith?
2. Why do fish need otoliths?
3. How is an otolith similar to a tree?
4. How can otoliths help scientists learn about each individual fish?
5. How can otoliths help scientists learn about fish populations, or fish stocks, as a whole?

Part 2: Collecting Data

Look at the enlarged otolith at the exhibit. Each metal ring on the otolith corresponds to a particular year of the fish's life. Touch the center ring of the otolith and look at the information that appears on the computer screen directly above it. Here you will find out the year that corresponds to the formation of that ring, the age of the fish, the size of the fish (in millimeters), and something interesting that happened that year.

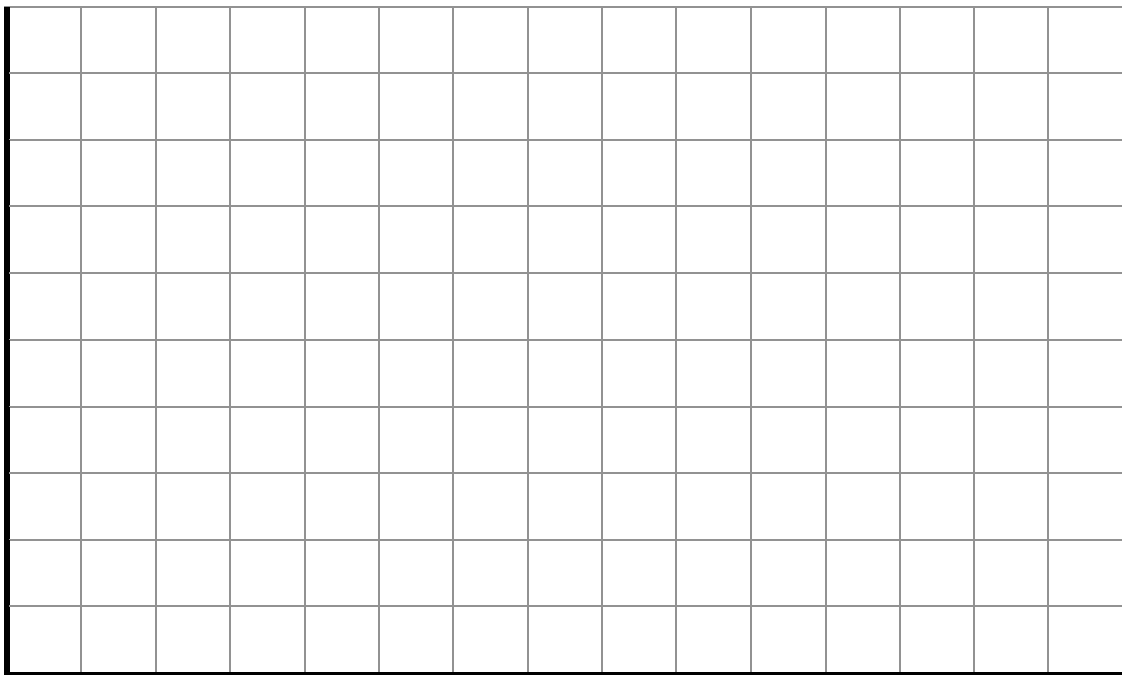
Fill in the table below by touching each of the rings on the otolith; be sure to start from the center and work your way out. Be patient once you have touched a ring, as the computer will take a moment to respond.

What year is it?	How old is the fish?	How long is the fish?

Part 3: Making a graph (please use pencil)

On the grid below, make a line graph of **fish age vs. fish length (mm)**; fish age will go on the x-axis and fish length on the y-axis. Before you begin graphing the actual data, be sure to determine the interval you will use for each axis and make sure all your information will fit neatly in the space available. *Also, make sure to give your graph an informative title, and label both your x and y axis.*

Title _____



Part 4: Interpreting the Graph

1. Between what two ages does the fish grow the fastest?
2. Between what two ages does the fish grow the slowest?
3. About how long was the fish at 12 years old?
4. About how long was the fish at 45 years old?

How can we relate this somehow to fisheries taking all the large fish and therefore the oldest fish?? Write a short paragraph below.