



Lab - Label The Scale.pdf

MUST BE PASSED IN!

The scales of a fish are like a book. They tell a story. They tell how old the fish is, where it has lived and if it has been eating well. Now scales can be used as a source of DNA to find out how closely individual Atlantic salmon are related, and even whether they are from the same stream or not.

Find the **core** or centre of the scale (it's not in the middle!). This has been labeled on the diagram. The first rings form when the fish is in its early stages. If the water is warm and there's lots of food, the fish will grow well. The rings will be spaced far apart. This is summer growth. Label this section of the scale.

Next are some **rings** that are very close together. These grow during the fish's first winter. The water is cold and there's little food. The fish doesn't grow very much and the rings are close together. This is winter growth. Label this section on the diagram. At this stage, the fish was a year old.

The fish then spends another year in freshwater. Can you find the summer and winter growth rings for the second year? Label these sections second summer and second winter.

Following the second winter, the fish feeds heavily and then starts its journey to sea. At this stage it is called a smolt. It goes through some major changes and the scales show a dark band. Find the smolt mark and label it.

The fish then spends its first summer at sea. There is lots of food and it eats and grows well. The growth rings are far apart. Can you find these? Label their first summer at sea.

This is followed by a winter at sea when the fish is not eating well and the rings are closer together. Find these rings and label them first winter at sea.

The fish then returns to freshwater to spawn. During this time it doesn't feed and the scales develop special marks or scars. They look like blank spots on the scale. Label these spawning scars.

The fish spends the winter in freshwater and then returns to sea the next spring. After another summer and winter at sea, it comes back to freshwater to spawn again. Label second summer at sea, second winter at sea, and second spawning scars.

Attachments

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