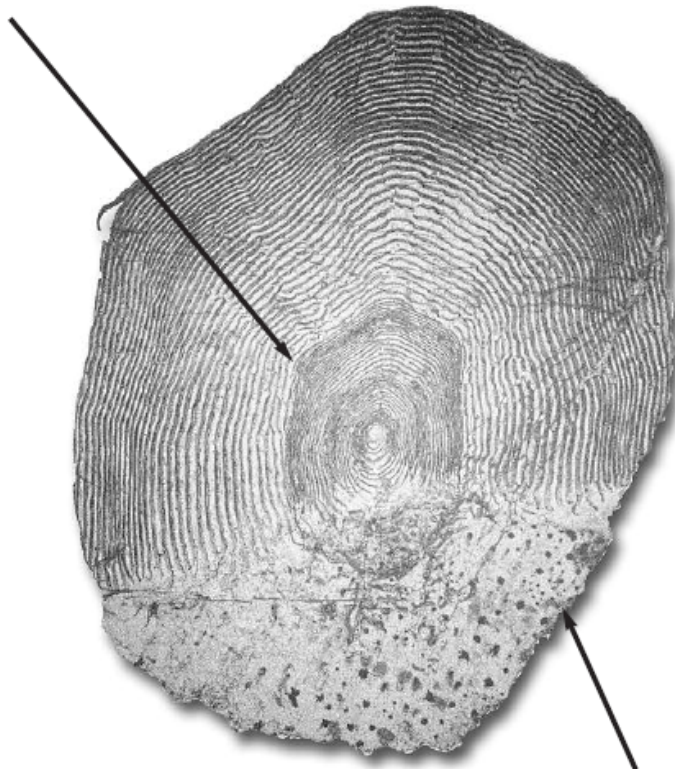


READING A SALMON SCALE

Have You Read Any Good Salmon Lately?

The scales of a fish are like a book; they tell a story. Information about how old a fish is, where it has lived, and if it has been eating well can be gathered from its scale.

left for ocean as 2 year old smolt



Returned from ocean as a grilse (1 year at sea).

In figure __, the rings that form around the centre or core of each scale represents stages in either fresh or saltwater. The most widespread method of aging salmon parr and adults involves collecting scales. When clean and undamaged, scales show progressive growth rings similar to the rings on a tree. As the salmon grows, new growth rings are laid down in the scale as it gets bigger. The scales with their growth rings can be magnified in order to accurately reveal the life history of an individual salmon.

During the growth of salmon, ridges (or rings) are formed around the centre of the scale (also known as the focus or nucleus). It has been determined that these rings are found in proportion to the growth of the fish.

It is from these groupings that we can analyze the growth rates and ages of salmon. The wide-spaced rings are summer growth, while narrowly-spaced rings are winter growth. While growth is usually determined by temperature and amount of food intake, these terms indicate increased food and growth in summer periods and a decrease in growth during winter when temperatures are colder and food is less abundant.

Does Scale Sampling Harm the Salmon?

An advantage of scale sampling is that scales can be removed without harming the fish. Scale samples are regularly collected from the brood stock of an enhancement project and from fish collected during stream surveys and recreational fishery surveys.