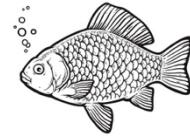


Practice Your Scales! An investigation of fish adaptations



Have you ever looked at the scales of a fish? Have you looked REALLY close?? What do they look like? Are they all like? If you've wondered about these questions, let's investigate!

Materials you need:

Magnifying lens
Clip-on microscope for a cell phone
Spoon, fish scaler, or pocket knife to collect scales
Various fish scale samples from different species

(Find photos of them at
<https://conservationtales.com/carp>)



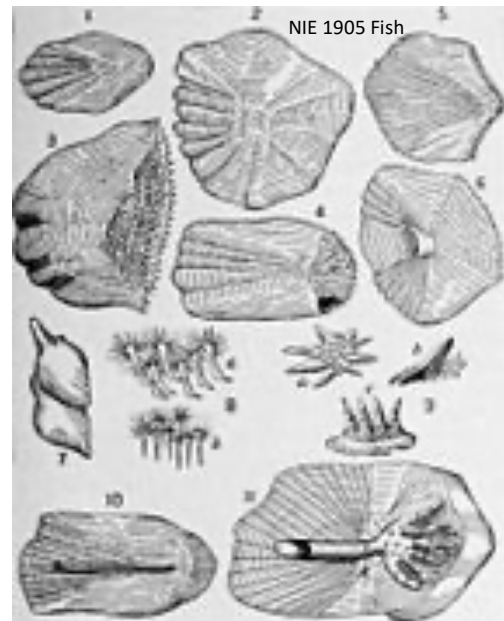
Investigation

If you go fishing, bring a small bag or envelope. Use a tool to scrape a few scales from a fish you catch, put them in the bag, and look at later! You can also look at the scales with a magnifying glass, and take notes about what you see. You can even use a phone to take pictures of scales.

Scientists who study fish sometimes do this, too. They take notes on the bag or envelope about the kind of fish it came from, the date, and where the fish was caught. You can be the scientist now!

After you collect some scales, put them on a piece of paper, and use a clip-on microscope for a cell phone to take pictures of the scales or draw them. The microscope lets you look at very small details!

If you can find scales from different kinds of fish, you can compare them. On the next page, you can make a scientific record of what you see. You can also write about how the scales are similar and different. If you do this with lots of scales, you may find patterns that let you figure out what fish a scale is from just by how it looks!



Scientist's drawing of fish scales from 1905.

The diagram at the right shows one scientist's drawings of scales from several kinds of fish. Let's make your own chart to compare fish scales.



Observing:

On the chart below, write down the type of fish from which you collected scales. Then you can put a photo or a drawing of the scale. Look for details like lines, rings, shapes, and ridges. Then write some observations of what you see.

Do the same with fish from different species. You can always come back and add to this chart another time! You may want to put this paper in a folder or binder to create a scientific journal! You can also look at more photos of fish scales at <https://conservationtales.com/carp>.

Type of Fish	Photo or Drawing	Observation Notes

Fish Scale Observations (Continued)

Type of Fish	Photo or Drawing	Observation Notes



Looking for Patterns:

Now that you have drawn or photographed some scales, what patterns do you see?

Are there kinds of fish you think you can identify by looking at scales? What patterns help you do that?

Why do you think some scales look like they have rings?

Asking More Questions:

Write any other new questions you have about fish scales after looking at your samples!