

FRESHWATER BIOINDICATORS ANSWER KEY



Many different rivers lead to Long Island Sound. Why is the river important to animals and humans?

Rivers provide drinking water for people, a habitat for animals, breeding ground for Long Island Sound animals, and carry nutrients to different areas of the river and Long Island Sound

A group of scientists monitoring a river decided to look for insects because they are indicators of pollution. If an insect is considered sensitive, it means the insect cannot exist in polluted areas. The scientists studied the river for 2 years and found the following insects during each survey.

Year 1: Body Builder Mayfly, Common Stonefly, Dragonfly, Brush Legged Mayfly, Water Penny Beetle

Year 2: Scud, Black Fly, Aquatic Sow Bug, Non-Biting Midge, Snail

<u>Most sensitive</u>	<u>Moderately sensitive</u>	<u>Least sensitive</u>
Body-Builder Mayfly Free-Living Caddisfly Brush Legged Mayfly Common Stonefly Saddlecase Maker Caddisfly	Fingernet Caddisfly Dragonfly Water Penny Beetle Dobsonfly Damselfly	Scud Aquatic Sow Bug Non-Biting Midge Black Fly Snail

What do the survey results tell us about the health of the river from year 1 to year 2? What should they do after year 2?

Use the survey results and the insect sensitivity guide above.

In year 1, the insects that were found are mostly in the sensitive category which means the river is healthy. There are 2 species that are moderately sensitive, so it could mean that a source of pollution is possibly entering the river.

In year 2, all the insects are least sensitive to pollution, which means the scientists should do further testing on the water to figure out what could be polluting the water.