Macroinvertebrate Stream Sampling Worksheet

Sequential Comparison Index (SCI)

1. On a sheet of paper, count and record the number of times you see each type of organism, and record them in the order that you see them. See the example, below. If you do not know the name of an organism, for now, just draw a sketch of it and call it "Bug A," "Bug B," etc.

1. Mayflies: ◁⃥

2. Leaches: |

3. Mayflies: ||||

4. Scuds: ||

5. Gilled Snails: |

6. Mayflies: ||

Example: You have collected 15 bugs. You identify a sequence of 5 mayflies, and then find a leach, then 4 mayflies, two scuds, a gilled snail, and then 2 more mayflies. Record your data as shown to the right.

2. The numbers that you write before each different type of organism are called "runs." So, in the example, there are 6 runs. How many do you have?

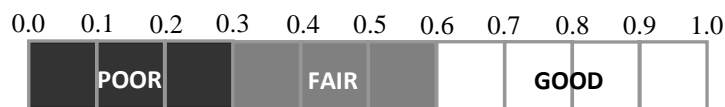   **Total number of runs:** _____

   Total number of organisms: _____

3. Next, use a calculator to compute the SCI number:

$$(\# \text{ of runs}) \div (\text{total \# of organisms}) = \text{SCI}$$

   Your numbers: _____ ÷ _____ = _____

4. The SCI runs from 0 to 1.0, with 1.0 representing the greatest diversity in organisms, or the best water quality.

SCI Water Quality

0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
POOR			FAIR				GOOD			

   Your water quality is _____.