

Quiz:

What are the six groups of macroinvertebrates we looked at in class last week?

Which of those groups are classified as Orders and which is a Genus?

Due at 1:37! or so

Field Trip: Thurs 1/15

All day!

- 1. Check in with 2nd, 4th, 6th, 8th teachers
2. Bring permission slip (signed)
by Wed. 1/14
3. Food/water for all day
4. Appropriate clothes -
- Water & mud safe footwear
 - Warm jackets/hats
 - Rain coats, pants
 - Umbrella

Aquatic macroinvertebrates are indicators of water quality.

An indicator is something that you can measure or detect that allows you to infer information about something else.

Because M.I.'s are immersed in the water, they are really sensitive to changes in water quality parameters.

Different groups of macroinvertebrates have different preferences for water quality... So we can look at which species are in Jackson Creek and how abundant they are and use that to estimate the water quality of Jackson Creek.

WE ARE LOOKING AT THE SUITABILITY OF JACKSON CREEK'S WATER TO SUPPORT WILDLIFE- TROUT/SALMON

Mayflies

Short tails, clear stripes : 3

Small, fast-moving: 6

Large mayfly with buggy eyes: 1

mayfly
richness = 3

Stoneflies

Small, with clear heads: 3

Large, with big claws: 2

stonefly
richness = 2

Caddisflies

Rock house : 1

Grass house : 1

caddisfly
richness = 2

of midges (red tree fly larvae)

6

% midges:

$$6/23 \approx 25\%$$

% dominance:

$$\frac{6+6+3}{23} = \frac{15}{23} \approx 66\%$$

Table 12-4. Family level metrics and scoring criteria.

Metric	Raw Value	Scoring Criteria			Score (Circle)
		5	3	1	
Taxa Richness		>18	10-18	<10	5 3 1
Mayfly Richness		>4	2-4	<2	5 3 1
Stonefly Richness		>3	1-3	0	5 3 1
Caddisfly Richness		>4	2-4	<2	5 3 1
% Chironomidae		<15	15-30	>30	5 3 1
% Dominance (Top 3 Taxa)		<30	30-50	>50	5 3 1

Score Range

Stream Condition

14

>23

No impairment: passes Level 2 assessment. Indicates good diversity of invertebrates and stream conditions with little disturbance. Further sampling will help confirm the site's condition as unimpaired.

17-23

Moderate Impairment: evidence of some impairment exists. Requires further study and more detailed analysis.

<17

Severe Impairment: fails Level 2 assessment. Evidence of stream disturbance exists. Further study may be warranted to confirm level of impairment and potential causes.

