

Survey of a Riparian Area

Student Handout

Name	
Date	
Time	
Weather	

Before you record your observations of the riparian area, find a starting point and draw the course of the creek on the back of this sheet. As you walk along the creek, draw and label your observations where they belong on your map. Beside each item listed below, you may wish to record detailed observations.

Insects	
Leaves in water	
Sagebrush	
Rocks in water	
Rocks along the bank	
Rocks with sharp edges	
Rounded rocks	
Things floating in the stream	
Colors in the creek	
Moss	
Bird nests	
Birds in trees	
Bushes	
Willows	
Grasses on the bank	
Grasses growing in the water	
Animal life in the water	
Bones	
Animal burrows	
Scat	
Tracks	
Sounds	
Water flow at logjams	
Multiple water depths	
Evidence of water level changes	
Appearance of the bank	
Location and number of willows	
Soil types (solid, sandy, muddy)	
Variation in soil type	
Largest tree	
Other	

Invertebrate Record Sheet
Student Handout

Type of Invertebrate	Number Found

Predictions of Water Characteristics

Study the tables for temperatures, pH ranges, and dissolved oxygen levels. Based on the aquatic organisms you found, predict the water characteristics of the stream.

	Measurement	Prediction
Temperature		
ph Range		
Disssolved Oxygen		

Data Sheet
Student Handout

Approximate Temperature Ranges Required for Organisms

Water Temperature (Fahrenheit)	Example of Life
Greater than 68°F (warm)	<ul style="list-style-type: none">Much plant life, many fish diseasesMostly bass, crappie, bluegill, carp, catfish, caddis fly
Middle range of 55°F to 68°F	<ul style="list-style-type: none">Some plant life, some fish diseasesSalmon, trout, stone fly, mayfly, caddis fly, water beetles
Low range of less than 55°F (cool)	<ul style="list-style-type: none">Little plant lifeTrout, caddis fly, stone fly, mayfly

ph Ranges Supporting Aquatic Life

	Most Acid					Neutral					Most Alkaline			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Microbes	1.0												13	
Plants, algae, rooted, etc.						6.5							12	
Carps, suckers, catfish,						6.0				9.0				
Bass, crappie						6.5			8.5					
Snails, clams, mussels							7.0			9.0				
Largest variety of animals— trout, mayfly, stone fly, caddis fly						6.5	7.5							

Dissolved Oxygen Requirements for Native Fish and Other Aquatic Life

Example of Life	D.O. in part per million or milligrams per liter
Cold-water organisms including salmon and trout, caddis fly, stone fly, mayfly (below 68°F—spawning, growth, and well-being)	6 ppm and above
Warm-water organisms including game fish such as bass, crappie, catfish, carp, and some caddis fly (above 68°F) Note: Pure, cold water can hold a maximum of 16 ppm under field conditions.	5 ppm and above