

Stream Sampling Worksheet

Part I.

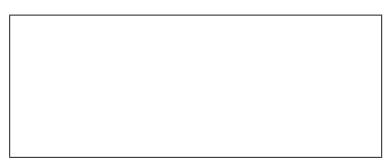
Sample 1

Group I



× 3 = _____

Group II



× 2 = _____

Group III



× 1 = _____

Other



× 0 = _____

Biotic Index Total =

Sample 2 Group I × 3 = _____ Group II × 2 = _____ Group III × 1 = _____ Other × 0 = _____

Biotic Index Total = _____



Part II.

Target Organism			
Number of Target Organ	nisms Originally Capt	ured and Marked	
Number of Marked Targ	et Organisms in Seco	nd Round Capture	
Total Number of Target (Organisms in Second	Round Capture	
		N = nT/t	Equation 1
where	t is the number of n is the Total Num	f Target Organisms Originally Captured and Marked Marked Target Organisms Recaptured on Estimate of Targeted Organisms	
Population Estimate of T	arget Organisms		
Actual Number of Count	ed Target Organisms	·	
		prevalent in your samples? e to determine the Biotic Index of Water Quality.	
Greater than 22	Excellent		
22–17	Good		
16–11	Fair		
Less than 11	Poor		
Use the chart above t	to determine the over	rall water quality rating of the two given samples.	
Water Quality			
Sample 1			
Sample 2			
3. Describe three factor	rs that could affect wa	ter quality.	

4. What steps could be taken to improve the water quality of a body of water?

5.	What factors could affect the overall population estimates found in Part II?
6.	How close was the calculated estimate of target species to the actual amount counted in step 17? Calculate the percent
	error using the following equation.
	Percent Error = Estimated Target Organism Population - Actual Target Organism Population × 100 =

7. Name an organism (other than the two examples given in the *Background* section) that the mark-and-recapture technique would work well for. Explain why.