

Estimating Biodiversity on a VIRTUE Disc Student Worksheet

Now that you have collected your VIRTUE discs from the water, let us perform some *quantitative analysis* of biodiversity on your discs and these can be performed by calculating some basic *diversity indices* commonly used in ecological surveys. These indices will provide you with numbers you can use to make objective comparisons of discs.

1. **Predict your results.** If you haven't done it before deploying the discs, you can now formulate your hypotheses. Discuss with your classmates and write down what results do you expect after analyzing your discs. In disc do you expect the highest or the lowest diversity. Or do you expect any differences in the diversity among the discs?

2. **Count the individual organisms for each species.** You can use the identification plates provided by your teacher to identify the main groups of organisms you can find or alternatively refer to the identification plates available on the VIRTUE-s website. Examine the disc under a stereomicroscope and count the individuals of each species you can identify. Another way of doing this is to make photos of your discs and count the organisms following the instructions for the ImageJ program.

3. **Create a table for your data.** Record your counts on the table below. If you are counting more than 1 disc, write the name or the number of the disc and some data, which may be important to consider when you interpret your results.

	Disc _____	Disc _____	Disc _____
Date of deployment			
Date of retrieval			
Number of days in the water			
Special remarks or characteristics			
Organisms found	Number of individuals (n)		
Total number of individuals (N)			
Total number of species found (S)			

