

## Calculate Species Diversity Using Shannon-Wiener Diversity Index Key 4empowerment®

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### Calculate Species Diversity Using Shannon-Wiener Diversity Index: Step 3

1. Using the data below and the correction factor found in Step 2, complete the [Biodiversity Step 3 worksheet](#) to calculate the Shannon-Wiener Diversity Index.

NOTE: This is a spreadsheet and has two tabs displaying two different pages at the bottom left of the worksheet. The first is the worksheet to determine the Shannon-Wiener Species Diversity Index. The second calculates Standard Deviation.

2. Extra Credit: Calculate the Standard Deviation using Species Diversity.

Species	Number of Individuals In Each Replicate						
	1	2	3	4	5	6	7
Stonefly Larva (Plecoptera)	4	1	1				
Caddisfly Larva (Trichoptera)	1	3	4				
Whirligig Beetle (Coleoptera)	2	3	4				
Crayfish (Cambarus)	3	0	1				
Amphipoda A	0	3	0				
Isopoda A	2	2	1				

Species Diversity answers contained within the Biodiversity Step 3 Worksheet can be found at [http://4cw3.com/en/myHomePage/teachersLounge/bio3form\\_ex.xls](http://4cw3.com/en/myHomePage/teachersLounge/bio3form_ex.xls). The first tab of the worksheet contains Species Diversity using the Shannon-Wiener Diversity Index. The second tab shows how to calculate Standard Deviation using Species Diversity.