School_____ Teacher_____ Name_____

WORKSHOP #5
WATERSHEDS AND POLLUTANTS
ECOTOXICOLOGY PROCEDURES AND DATA SHEET

STEP 1: PERFORM YOUR OWN SERIAL DILUTION (SEE INSTRUCTION SHEET)

Experimental Results

STEP 2: EXAMINE YOUR CONTROL BEAKER (0 G SALT/100 ML WATER)

Together with your partner observe the zooplankton and record your observations below.

DESCRIBE the size(s) and color(s) of your zooplankton. _____

_____

Do you think that you have more than one species? _____

STEP 3: EXAMINE THE BEAKER CONTAINING THE "CONTAMINANT"

A. What <u>experimental</u> treatment (salt concentration) do you have *[circle correct concentration]*?

3.5 g/100 ml 2.6 g/100ml 1.9 g/100 ml 1.4 g/100 ml

B. What is the behavior of the zooplankton in your salt solution?

_____

_____

_____

STEP 4: COUNT THE ZOOPLANKTON IN BOTH YOUR BEAKERS (CONTROL AND SALT SOLUTION)

1. Together with your partner, count the **ZOOPLANKTON** in both your <u>control</u> beaker and your <u>contaminant</u> beaker.
2. As you count zooplankton in one beaker, your partner will count zooplankton in the other.
3. Count the number of zooplankton that are **ALIVE**, as well as the number that are **DEAD**.
4. Then **SWITCH BEAKERS** with your partner and **REPEAT** the counts. Record your data below, and share your data with your partner.
5. Record your results in the tables on the back of this data sheet.

CONTROL (NO SALT)								
Number counted	**1st count** MY COUNT	+	**2nd count** MY PARTNER'S COUNT	=	**Sum**	**Divide sum by 2**	=	**Average**
ALIVE		+		=		÷ 2	=	
DEAD		+		=		÷ 2	=	
TOTAL		+		=		÷ 2	=	

EXPERIMENTAL TREATMENT ("CONTAMINATED")								
Number counted	**1st count** MY COUNT	+	**2nd count** MY PARTNER'S COUNT	=	**Sum**	**Divide sum by 2**	=	**Average**
ALIVE		+		=		÷ 2	=	
DEAD		+		=		÷ 2	=	
TOTAL		+		=		÷ 2	=	

STEP 5: DETERMINE THE PROPORTION OF ZOOPLANKTON THAT ARE STILL ALIVE

For each treatment (control and "contaminated"), divide the average number of zooplankton that are still alive by the average total number of zooplankton you counted (alive + dead). Use the last columns in the tables above:

	CONTROL		PROPORTION SURVIVING		CONTAMINATED		PROPORTION SURVIVING
AVERAGE # ALIVE / AVERAGE TOTAL #		=				=	

STEP 6: GRAPH YOUR RESULTS BELOW. Use data from YOUR Control and Contaminated treatments.