

**A 'DAY IN THE LIFE' OF THE HUDSON & HARBOR**  
**DATE \_\_\_\_\_**

<http://www.ideo.columbia.edu/dayinthelife>

**PLEASE SEND US YOUR DATA VIA GOOGLE FORM within 24-48 HOURS:**

Google Form: <https://forms.gle/EydSEd9A8ysX3p2J7>  
 Questions:  
 Margie Turrin, 845-365-8494  
 Email (preferable): [mkt@ideo.columbia.edu](mailto:mkt@ideo.columbia.edu)



**PRIZE ALERT!**

The groups that send in their data packets by **October 16<sup>th</sup>** will be entered into a drawing to win a PRIZE from the "Day in the Life" Team.

**NOTES FOR THE DAY:**

- Do all or some of these tests: prioritizing salinity, D.O., & fish
- Supporting materials & activities are at the website link above
- Submit your results ASAP. Your data contributes toward a long-term database
- Include this cover sheet with your data

RECORDING SHEET I - BACKGROUND INFORMATION.

1. Site contact person \_\_\_\_\_  
 Organization \_\_\_\_\_  
 Street \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 phone \_\_\_\_\_ fax \_\_\_\_\_ email \_\_\_\_\_
2. School/group name \_\_\_\_\_ District \_\_\_\_\_  
 Name of teacher/group leader \_\_\_\_\_  
 Street \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Phone \_\_\_\_\_ Fax \_\_\_\_\_ Email \_\_\_\_\_  
 Number of Students \_\_\_\_\_ Number of Adults \_\_\_\_\_  
 Student grade level & course if applicable \_\_\_\_\_
3. Where are you sampling. Please be as specific as possible.  
 \_\_\_\_\_
4. RIVER MILE: \_\_\_\_\_  
 The Battery at the southern tip of Manhattan = River Mile 0  
 The Federal Dam at Troy = River Mile 153

# DITL Surroundings Data

Name \_\_\_\_\_ Date \_\_\_\_\_ Location \_\_\_\_\_


Your surroundings affect all the other data you collect! Examine & record the sample area.

<p><b>LOCATION:</b> site name, city</p> <hr/> <p><b>RIVER MILE:</b> Using Hudson River Estuary Map</p> <hr/> <p><b>LATITUDE &amp; LONGITUDE:</b></p> <hr/>	<hr/> <hr/> <hr/>														
<p><b>AREA:</b> Describe your area in 1 sentence so someone could find your sample location.</p>	<hr/> <hr/> <hr/>														
<p><b>SAMPLING SITE:</b> Check all that apply</p>	<table border="0"> <tr> <td><input type="checkbox"/> Pier</td> <td><input type="checkbox"/> Grassy</td> </tr> <tr> <td><input type="checkbox"/> Forested</td> <td><input type="checkbox"/> Parking Lot</td> </tr> <tr> <td><input type="checkbox"/> Beach</td> <td><input type="checkbox"/> Covered in vegetation</td> </tr> <tr> <td><input type="checkbox"/> Banks altered</td> <td><input type="checkbox"/> RipRap (Large rocks)</td> </tr> <tr> <td><input type="checkbox"/> Wood Bulkhead</td> <td><input type="checkbox"/> Concrete Bulkhead</td> </tr> <tr> <td><input type="checkbox"/> Pipe entering the water</td> <td><input type="checkbox"/> Marshy</td> </tr> </table>	<input type="checkbox"/> Pier	<input type="checkbox"/> Grassy	<input type="checkbox"/> Forested	<input type="checkbox"/> Parking Lot	<input type="checkbox"/> Beach	<input type="checkbox"/> Covered in vegetation	<input type="checkbox"/> Banks altered	<input type="checkbox"/> RipRap (Large rocks)	<input type="checkbox"/> Wood Bulkhead	<input type="checkbox"/> Concrete Bulkhead	<input type="checkbox"/> Pipe entering the water	<input type="checkbox"/> Marshy		
<input type="checkbox"/> Pier	<input type="checkbox"/> Grassy														
<input type="checkbox"/> Forested	<input type="checkbox"/> Parking Lot														
<input type="checkbox"/> Beach	<input type="checkbox"/> Covered in vegetation														
<input type="checkbox"/> Banks altered	<input type="checkbox"/> RipRap (Large rocks)														
<input type="checkbox"/> Wood Bulkhead	<input type="checkbox"/> Concrete Bulkhead														
<input type="checkbox"/> Pipe entering the water	<input type="checkbox"/> Marshy														
<p><b>SURROUNDING LAND USES:</b> Record as a percentage of 100% For example, 50% is half the usage</p>	<table border="0"> <tr> <td><input type="checkbox"/> Urban/residential</td> <td><input type="checkbox"/> Forested</td> </tr> <tr> <td><input type="checkbox"/> Industrial/commercial</td> <td><input type="checkbox"/> Beach</td> </tr> <tr> <td><input type="checkbox"/> Other (explain) _____</td> <td></td> </tr> </table>	<input type="checkbox"/> Urban/residential	<input type="checkbox"/> Forested	<input type="checkbox"/> Industrial/commercial	<input type="checkbox"/> Beach	<input type="checkbox"/> Other (explain) _____									
<input type="checkbox"/> Urban/residential	<input type="checkbox"/> Forested														
<input type="checkbox"/> Industrial/commercial	<input type="checkbox"/> Beach														
<input type="checkbox"/> Other (explain) _____															
<p><b>SHORELINE</b> Record as a percentage of 100%</p>	<table border="0"> <tr> <td><input type="checkbox"/> Sandy</td> <td><input type="checkbox"/> Muddy</td> <td><input type="checkbox"/> Rocky</td> </tr> </table>	<input type="checkbox"/> Sandy	<input type="checkbox"/> Muddy	<input type="checkbox"/> Rocky											
<input type="checkbox"/> Sandy	<input type="checkbox"/> Muddy	<input type="checkbox"/> Rocky													
<p><b>RIVER BOTTOM:</b> Check all that apply:</p>	<p><b>Estimated Water Depth (cm)</b> _____</p> <table border="0"> <tr> <td><input type="checkbox"/> Bottom muddy</td> <td><input type="checkbox"/> Bottom sandy</td> </tr> <tr> <td><input type="checkbox"/> Bottom weedy</td> <td><input type="checkbox"/> Bottom rocky</td> </tr> </table>	<input type="checkbox"/> Bottom muddy	<input type="checkbox"/> Bottom sandy	<input type="checkbox"/> Bottom weedy	<input type="checkbox"/> Bottom rocky										
<input type="checkbox"/> Bottom muddy	<input type="checkbox"/> Bottom sandy														
<input type="checkbox"/> Bottom weedy	<input type="checkbox"/> Bottom rocky														
<p><b>WATER:</b> Describe the water itself</p>	<table border="0"> <tr> <td><input type="checkbox"/> Calm</td> <td><input type="checkbox"/> Choppy</td> </tr> </table>	<input type="checkbox"/> Calm	<input type="checkbox"/> Choppy												
<input type="checkbox"/> Calm	<input type="checkbox"/> Choppy														
<p><b>PLANTS IN THE WATER:</b> Record the <b>aquatic plants</b> (plants growing in the water) as a percentage of the total area.</p> <p><b>IF NONE, please check None.</b></p>	<table border="0"> <tr><td>%</td><td>_____ Plant _____</td></tr> <tr><td>%</td><td>_____ Plant _____</td></tr> <tr><td>%</td><td>_____ Plant _____</td></tr> <tr><td>%</td><td>_____ Plant _____</td></tr> <tr><td>%</td><td>_____ Plant _____</td></tr> <tr><td>%</td><td>_____ Plant _____</td></tr> <tr><td>_____</td><td>No Plants in the water</td></tr> </table>	%	_____ Plant _____	%	_____ Plant _____	%	_____ Plant _____	%	_____ Plant _____	%	_____ Plant _____	%	_____ Plant _____	_____	No Plants in the water
%	_____ Plant _____														
%	_____ Plant _____														
%	_____ Plant _____														
%	_____ Plant _____														
%	_____ Plant _____														
%	_____ Plant _____														
_____	No Plants in the water														

# DITL Surroundings Data

Name \_\_\_\_\_ Date \_\_\_\_\_ Location \_\_\_\_\_

**SKETCH YOUR SAMPLING SITE:** *Be sure to include a compass rose showing N/S/E/W and locate the river on your sketch, and note your sampling site.*



**COMMERCIAL TRAFFIC:** *Record any large boats, tugs, or barges. Record the name, color, direction & if it is light/loading (Loaded barge with cargo sits lower in the water.)*

Time:	Name	Color	North or Southbound	Loaded or Light
-------	------	-------	---------------------	-----------------

---

Time:	Name	Color	North or Southbound	Loaded or Light
-------	------	-------	---------------------	-----------------

---

Time:	Name	Color	North or Southbound	Loaded or Light
-------	------	-------	---------------------	-----------------

---

**RECREATIONAL TRAFFIC:** *Record any sail, speed, or other rec. boats.*

Time:	Name	Color	North or Southbound	Loaded or Light
-------	------	-------	---------------------	-----------------

---

Time:	Name	Color	North or Southbound	Loaded or Light
-------	------	-------	---------------------	-----------------

---

Time:	Name	Color	North or Southbound	Loaded or Light
-------	------	-------	---------------------	-----------------

---

DITL Physical Conditions Data: Name \_\_\_\_\_ Date \_\_\_\_\_ Location \_\_\_\_\_

**TIDES – Semidiurnal Tides: 2 high tides & 2 low tides a day**

**Technique:** Tide Stick: \_\_\_\_\_ OR Dock to Water: \_\_\_\_\_

Start time: _____	Water height (cm) _____	-	-	-	
Check time: _____	Water height (cm) _____	<b>Please Circle:</b>	Falling	Rising	Slack
Check time: _____	Water height (cm) _____	<b>Please Circle:</b>	Falling	Rising	Slack
Check time: _____	Water height (cm) _____	<b>Please Circle:</b>	Falling	Rising	Slack
Check time: _____	Water height (cm) _____	<b>Please Circle:</b>	Falling	Rising	Slack
Check time: _____	Water height (cm) _____	<b>Please Circle:</b>	Falling	Rising	Slack

**CURRENTS –**

\*Knots = (cm/sec)/51.4

Time: _____	_____ Cm/sec	_____ *Knots	<b>Please Circle:</b>	Ebb	Flood	Slack
Time: _____	_____ Cm/sec	_____ *Knots	<b>Please Circle:</b>	Ebb	Flood	Slack
Time: _____	_____ Cm/sec	_____ *Knots	<b>Please Circle:</b>	Ebb	Flood	Slack
Time: _____	_____ Cm/sec	_____ *Knots	<b>Please Circle:</b>	Ebb	Flood	Slack

**Record Metadata:** Record anything about the shoreline that could cause the near shore to flow in a different direction than the current in the middle of the river (i.e. Pier, Cove, etc.)

**AIR TEMPERATURE**

Time: _____	Air temperature: _____ °F	_____ °C
Time: _____	Air temperature: _____ °F	_____ °C
Time: _____	Air temperature: _____ °F	_____ °C

$^{\circ}\text{C} = 0.556 \times (^{\circ}\text{F} - 32)$

$^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32$

**WIND SPEED**

Time: \_\_\_\_\_ Beaufort #: \_\_\_\_\_  
Wind Meter: \_\_\_\_\_ **Circle Units:** m/s - km/hr - mph - knots. Wind Direction (wind comes from): \_\_\_\_\_

**CLOUD COVER**

Time: \_\_\_\_\_  
Clear(<25%): \_\_\_\_\_ Partly-Cloudy(26-50%): \_\_\_\_\_ Mostly-Cloudy(51-75%): \_\_\_\_\_ Overcast(>75%): \_\_\_\_\_

**RAIN (PRECIPITATION) TODAY & WEATHER FOR THE PAST 3 DAYS-**

Time: \_\_\_\_\_ Rain: \_\_\_\_\_ If yes, how steady or how much (cm) did it rain? \_\_\_\_\_  
Briefly describe the weather for the last 3 days: Rain, wind, unusual temperatures? \_\_\_\_\_

**DITL Turbidity Data** Name \_\_\_\_\_ Date \_\_\_\_\_ Location \_\_\_\_\_

**TURBIDITY - Expected High Turbidity in an Estuary. (Units vary depending on equipment)**

BE SURE TO MARK THE EQUIPMENT YOU ARE USING FOR THE TEST:

1. Long Sight Tube (cm): _____	2. Secchi Disk (cm): _____	3. Turbidimeter (NTU): _____
-----------------------------------	-------------------------------	---------------------------------

**RECORD the correct unit** for the piece of equipment that you are using: feet, cm, meters, JTUs or NTUs

Time: \_\_\_\_\_

Reading 1: \_\_\_\_\_ Reading 2: \_\_\_\_\_ Reading 3: \_\_\_\_\_ Average: \_\_\_\_\_

Time: \_\_\_\_\_

Reading 1: \_\_\_\_\_ Reading 2: \_\_\_\_\_ Reading 3: \_\_\_\_\_ Average: \_\_\_\_\_

Time: \_\_\_\_\_

Reading 1: \_\_\_\_\_ Reading 2: \_\_\_\_\_ Reading 3: \_\_\_\_\_ Average: \_\_\_\_\_

**Observations**

Can you describe how turbid your water is? Include color, visibility, how deep can you see into it?

**DITL Chemical Data** Name \_\_\_\_\_ Date \_\_\_\_\_ Location \_\_\_\_\_

**WATER TEMPERATURE** - Expected High Temperature in October would be  $\leq 25^{\circ}\text{C}$ . Record both  $^{\circ}\text{C}$  &  $^{\circ}\text{F}$

$$^{\circ}\text{C} = 0.556 \times (^{\circ}\text{F} - 32^{\circ})$$

$$^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32^{\circ}$$

Time: \_\_\_\_\_ COLLECTED WATER IN BUCKET: YES / NO If NO, Approximate Water Depth: (ft): \_\_\_\_\_

Reading 1: \_\_\_\_\_  $^{\circ}\text{C}$  \_\_\_\_\_  $^{\circ}\text{F}$  Reading 2: \_\_\_\_\_  $^{\circ}\text{C}$  \_\_\_\_\_  $^{\circ}\text{F}$  Average: \_\_\_\_\_  $^{\circ}\text{C}$  \_\_\_\_\_  $^{\circ}\text{F}$

Time: \_\_\_\_\_ COLLECTED WATER IN BUCKET: YES / NO If NO, Approximate Water Depth: (ft): \_\_\_\_\_

Reading 1: \_\_\_\_\_  $^{\circ}\text{C}$  \_\_\_\_\_  $^{\circ}\text{F}$  Reading 2: \_\_\_\_\_  $^{\circ}\text{C}$  \_\_\_\_\_  $^{\circ}\text{F}$  Average: \_\_\_\_\_  $^{\circ}\text{C}$  \_\_\_\_\_  $^{\circ}\text{F}$

Time: \_\_\_\_\_ COLLECTED WATER IN BUCKET: YES / NO If NO, Approximate Water Depth: (ft): \_\_\_\_\_

Reading 1: \_\_\_\_\_  $^{\circ}\text{C}$  \_\_\_\_\_  $^{\circ}\text{F}$  Reading 2: \_\_\_\_\_  $^{\circ}\text{C}$  \_\_\_\_\_  $^{\circ}\text{F}$  Average: \_\_\_\_\_  $^{\circ}\text{C}$  \_\_\_\_\_  $^{\circ}\text{F}$

**SALINITY** - Expected Range: ~40 ppm in freshwater section up to 30,000 ppm (30 ppt) in harbor.

BE SURE TO MARK THE EQUIPMENT YOU ARE USING FOR THE TEST (units are listed by equipment):

Quantab Strips (PPM Cl <sup>-</sup> ): High Range: _____ Low Range: _____ <i>Record the <b>PPM CHLORIDE</b> (3<sup>rd</sup> column on Quantab bottle)</i>	Meter/Probe (PPT) _____	Refractometer (PPT) _____	Hydrometer (PPT) _____
--	-------------------------	---------------------------	------------------------

Time: \_\_\_\_\_ Reading 1: \_\_\_\_\_ Reading 2: \_\_\_\_\_ Reading 3: \_\_\_\_\_ (UNITS!)

Time: \_\_\_\_\_ Reading 1: \_\_\_\_\_ Reading 2: \_\_\_\_\_ Reading 3: \_\_\_\_\_ (UNITS!)

Time: \_\_\_\_\_ Reading 1: \_\_\_\_\_ Reading 2: \_\_\_\_\_ Reading 3: \_\_\_\_\_ (UNITS!)

**pH (POTENTIAL HYDROGEN)** - Expected Range: Most fish prefer 6.5-8.5 (NO UNITS for pH).

BE SURE TO MARK THE EQUIPMENT YOU ARE USING FOR THE TEST:

Test Strips \_\_\_\_\_

Color Match Test Kit \_\_\_\_\_

Meter \_\_\_\_\_

pH Pen \_\_\_\_\_

Time: \_\_\_\_\_ Reading 1: \_\_\_\_\_ Reading 2: \_\_\_\_\_ Reading 3: \_\_\_\_\_

Time: \_\_\_\_\_ Reading 1: \_\_\_\_\_ Reading 2: \_\_\_\_\_ Reading 3: \_\_\_\_\_

Time: \_\_\_\_\_ Reading 1: \_\_\_\_\_ Reading 2: \_\_\_\_\_ Reading 3: \_\_\_\_\_

**ALKALINITY** - Expected Range: 80-100 mg/L. A measure of the water's buffering capacity (Units: mg/L)

Method: \_\_\_\_\_ Time: \_\_\_\_\_ Reading 1: \_\_\_\_\_ Reading 2: \_\_\_\_\_ Reading 3: \_\_\_\_\_

**NITRATE** - Expected Range: <1 mg/L. A nutrient used by plants & animals for growth (Units: mg/L)

Method: \_\_\_\_\_ Time: \_\_\_\_\_ Reading 1: \_\_\_\_\_ Reading 2: \_\_\_\_\_ Reading 3: \_\_\_\_\_

**PHOSPHATE** - Expected Range: <1 mg/L. Plant nutrient that occurs in rocks, soil, & animal waste (Units: mg/L)

Method: \_\_\_\_\_ Time: \_\_\_\_\_ Reading 1: \_\_\_\_\_ Reading 2: \_\_\_\_\_ Reading 3: \_\_\_\_\_

DITL Chemical Data Name \_\_\_\_\_ Date \_\_\_\_\_ Location \_\_\_\_\_

**DISSOLVED OXYGEN (D.O.)** - Healthy Expected Range: 5.0-11.0 mg/L. (Units: mg/L = PPM)

BE SURE TO MARK THE EQUIPMENT YOU ARE USING FOR THE TEST

Meter/Probe \_\_\_\_\_

Drop Count Kit \_\_\_\_\_

Other \_\_\_\_\_

Time: \_\_\_\_\_ Water temperature in °C: \_\_\_\_\_ DO (mg/L or PPM): \_\_\_\_\_ % saturation: \_\_\_\_\_

Time: \_\_\_\_\_ Water temperature in °C: \_\_\_\_\_ DO (mg/L or PPM): \_\_\_\_\_ % saturation: \_\_\_\_\_

Time: \_\_\_\_\_ Water temperature in °C: \_\_\_\_\_ DO (mg/L or PPM): \_\_\_\_\_ % saturation: \_\_\_\_\_

**% SATURATION OF DISSOLVED OXYGEN (D.O.)** - Healthy Expected Range 90% or above

1. Locate your DO reading on the bottom scale (ppm = mg/L), and the water temperature (°C) on the top scale.
2. Draw a straight line between the temperature and DO.
3. The % saturation is the value where the line intercepts the saturation scale.

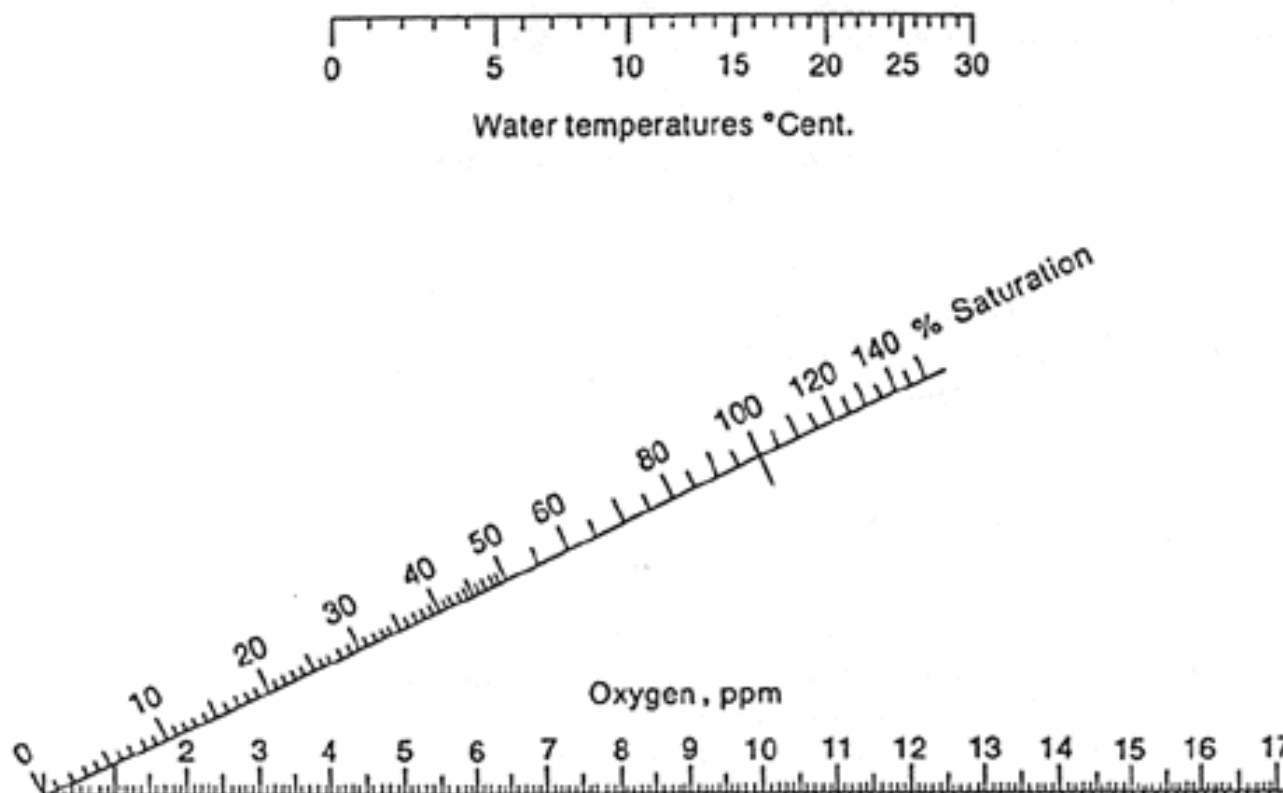


Chart Source: <http://waterontheweb.org/under/waterquality/oxygen.html>

CORE ID# Date, Location, Town/Village	NAME	DATE	LOCATION	GROUP # (if applicable)	
INFO ABOUT CORING SITE:	TIME	LATITUDE	LONGITUDE	WATER DEPTH	
<b>CORE LENGTH:</b> _____ cm					
	Yes	No	Descriptors - Please note additional observations		
H <sub>2</sub> S smell			H <sub>2</sub> S smells of rotten eggs, suggesting anaerobic bacteria		
Oil			Oil creates a slight smell, a slickness and a sheen		
Oxidized top*			*Oxidation (reaction with oxygen) creates a distinctly lighter layer of sediment.		
Length of Oxidized Top ( _____ cm					
	Absent	Rare	Common	Abundant	Additional Comments
Clay					Very fine material, rich dense feel, pills when rolled - grey color
Mud					Smooth feel on fingers, often slick/ wet - brown color
Sand					Gritty feeling between fingers - variable color
Gravel					Pea sized pieces of stone - variabe color
Pebbles					Pieces of stone larger than pea - variable color
Leaves					
Wood					
Shells Oysters (dead/alive?)					
Shells mussels (except Zebra Mussels)					
Shells Zebra mussels					
Macroinvertebrates					
Living vegetation					
Brick					
Coal					
Slag					Industrial byproduct - chunky, light, pocketed & air filled
<b>IF BAGGED, RECORD THE CORE ID # ON THE CORE COLLECTION BAG</b>					
Sketch of your core below with measurements for each section & total core:					

<--TOP                      BOTTOM-->



DITL Fish and Macroinvertebrates Name \_\_\_\_\_ Date \_\_\_\_\_ Location \_\_\_\_\_

**1. FISH & MACROINVERTEBRATES:**

**FISHING METHOD (Select all that apply):** Seine:\_\_\_ Traps:\_\_\_ Rod & Reel:\_\_\_ Electro-Shocking:\_\_\_ Trawl:\_\_\_ Kick Net:\_\_\_ Eel Mop:\_\_\_\_\_ DID NOT FISH:\_\_\_ OYSTER CAGE\_\_\_ Other: (Explain) \_\_\_\_\_

<b>FISHING #1</b> TIME: _____	<b>FISHING #2</b> TIME: _____	<b>FISHING #3</b> TIME: _____
<b>FISHING #4</b> TIME: _____	<b>FISHING #5</b> TIME: _____	<b>FISHING #6</b> TIME: _____
<b>FISHING #7</b> TIME: _____	<b>FISHING #8</b> TIME: _____	<b>FISHING #9</b> TIME: _____

FISH SPECIES TOTAL:	# INDIVIDUALS:	LARGEST SIZE	SMALLEST SIZE
1. _____	_____	_____cm	_____cm
2. _____	_____	_____cm	_____cm
3. _____	_____	_____cm	_____cm
4. _____	_____	_____cm	_____cm
5. _____	_____	_____cm	_____cm
6. _____	_____	_____cm	_____cm
7. _____	_____	_____cm	_____cm
8. _____	_____	_____cm	_____cm
9. _____	_____	_____cm	_____cm

 <p><b>Atlantic Silverside</b></p>	<p><b>Please take photos of the fish</b> and send them to us for ID. This image of the Atlantic Silverside is the format to take fish pictures. <b>FULL BODY + HEAD TO THE LEFT</b></p>	<p><b>blue crab</b></p>  <p>Female Male</p>	<p><b>Identify crab species:</b> Blue vs. Mud vs. Asian etc. If possible, include the sex of the crabs M/F.</p>
--	---	---	---

MACROINVERTEBRATE SPECIES TOTAL:	# INDIVIDUALS:	LARGEST /SMALLEST SIZE	M / F
1. _____	_____	_____cm _____cm	M / F
2. _____	_____	_____cm _____cm	M / F
3. _____	_____	_____cm _____cm	M / F
4. _____	_____	_____cm _____cm	M / F
5. _____	_____	_____cm _____cm	M / F
6. _____	_____	_____cm _____cm	M / F
7. _____	_____	_____cm _____cm	M / F
8. _____	_____	_____cm _____cm	M / F
9. _____	_____	_____cm _____cm	M / F

**CATCH PER UNIT EFFORT:** CPUE= Catch of a seine event/ [Net Length (m) X Length of Pull (m)]

Time: \_\_\_\_\_ Catch Total: \_\_\_\_\_ Net Length (m): \_\_\_\_\_ Length of Pull: \_\_\_\_\_ Computed CPUE: \_\_\_\_\_

**DITL JOURNALING** Name \_\_\_\_\_ Date \_\_\_\_\_ Location \_\_\_\_\_

**JOURNALING**— *How do we learn about the environment?* **WE OBSERVE!**

The power of observation plays an important role in science and Earth systems. Direct observation and careful description helps us compare species, habitats, and different geographical regions.

**Things to record can begin with the following...**

1. Close your eyes and listen to the environment: What can you hear? What do you smell? What does the weather feel like (i.e. humid, dry, cold, wet, windy)?
2. Open your eyes: What do you see that surprises you? Describe your surroundings.
3. What do you think might have affected your data collection today?
4. What do you still wonder about?

**Hudson River Journal Entry:**

By: