



## Unit 1: Dead Zones

### Lesson 2, Activity B: Interpreting Lake Erie Temperatures

#### Data sheet

1. Compare water temperatures at buoy 45142 on June 8 and November 15.

June 8

- a. What is the temperature at the surface?
- b. At the bottom?
- c. Is the water profile stratified?

November 15

- a. What is the temperature at the surface?
- b. At the bottom?
- c. Is the water profile stratified?

2. What has changed between June 8 and November 15? Why?

3. Compare water temperatures at buoy 45142 on November 15 and January 10.

November 15

- a. What is the temperature at the surface?
- b. At the bottom?
- c. Is the water profile stratified?

January 10

- a. What is the temperature at the surface?
- b. At the bottom?
- c. Is the water profile stratified?



4. What has changed between November 15 and January 10?
5. In the spring as weather warms, surface temperatures rise. Graph (using graph paper) data from buoy 45142 on April 19 and answer the question below. Include title and date, label x-axis and y-axis. What has changed by April 19?

| Water temperature vs. depth<br>Buoy 45152 April 19, 2008 |                  |
|--|------------------|
| Depth (m)  | Temperature (°F) |
| 0  | 42               |
| 5  | 42               |
| 10   | 39               |
| 15   | 39               |
| 20   | 39               |
| 25   | 39               |

6. Compare water temperatures at buoy 45142 on April 19 (your graph) and May 29. What has happened to water temperatures?
7. Label the epilimnion, metalimnion and hypolimnion on your graph.
8. In addition to time of year, what variables do you think affect stratification in lakes?