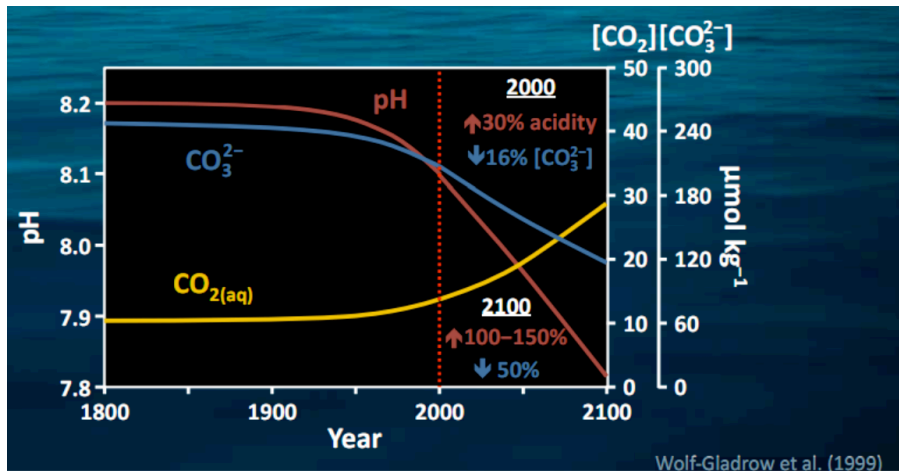


## Ocean Acidification: Is There a Problem?

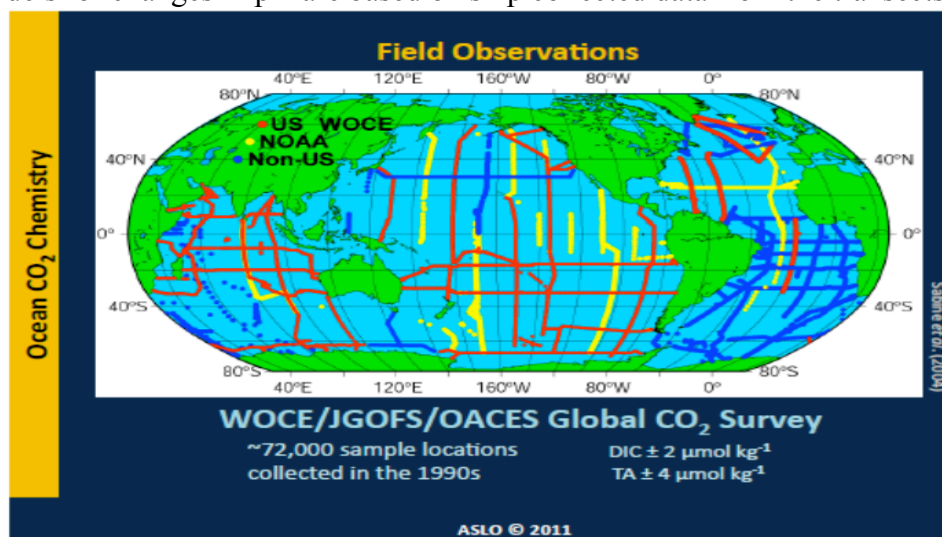
### Let's apply modeling to changes in seawater pH

Here is a current model for what might happen to the pH of the ocean in the future.



### Where do scientists get the data to generate these graphs?

Current models for changes in pH are based on ship collected data from the transects below:



What potential problems do you see from this collection process?

What questions do you have from viewing this graphic?

Using the “pH of Earth’s Oceans” map, plot the ten sites listed below (these points are the locations of pH sensors that are currently or soon to be operating)

- |                          |                            |
|--------------------------|----------------------------|
| 1. (50.1°N, 144.9°W)     | 6. (30°N, 88.6°W)          |
| 2. (43.02°N, 70.54°W)    | 7. (59.85°N, 149.5°W)      |
| 3. (47.97°N, 124.95°W)   | 8. (36.9725 N, 122.1569 W) |
| 4. (31.40°N, 80.87°W)    | 9. (36.9437 N, 122.0793 W) |
| 5. (34.324°N, 120.814°W) | 10. (59.55 N, 150.97 W)    |

**Findings:** Discuss your findings from your web quest investigation below. Use the following questions as a guide to your responses:

1. Can these pH sensors provide scientists with enough data to give an accurate picture of the ocean and its potential pH changes in the future? Support your stance (don’t just say “yes” or “no”) by making inferences about Earth’s future ocean pH from the available pH data.
2. What other questions do you have based on your investigation?
3. How do your findings and inferences compare with those of some of the scientists and research you explored during your web quest?