UNIT 6, STEP 3: WORKSHEETS FOR "WORLD FISHERIES" ASSIGNMENT

Name:___________________________________ Date: __________________

For 15 points, do the assignment entitled "World Fisheries." Directions are on the Biology 183 website. This assignment can be completed anywhere that you have internet access. When you have completed the assignment, turn in your worksheets and initial and date the Assignment Check-In sheet at the front desk in the Biology Learning Center. Your instructor will grade them and return them in a few days.

A grading rubric for this assignment is linked to the Unit 6, Step 3 website pages. This assignment must be turned in before or on the Second Deadline. Please check your syllabus or ask at the front desk for this date.

Answer the following questions by referring to both the article and your lab's introduction. Don't forget to read the boxed information in the article. You must answer in your own words! If you just cut and paste your answers, you will receive no points.

1. Who are the key "players" in the politics of the world's fisheries? In other words, who has a stake in fisheries? Which players' viewpoints are represented by this article? [Read the assignment web pages for hints.]

2. What is your intuition about the validity or "truth" of the viewpoint expressed in the article?

3. Name three ways that the fishing process became more industrialized after World War Two.

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4. Single-species stock assessments are techniques used to estimate how fish of one species (such as Red Snapper) respond to fishing and to figure out the maximum level of fishing that can be sustained by that species without leading to overfishing.

What are four problems that limit the usefulness of single-species stock assessments?

5. Completely describe the typical trophic levels (TL) in marine systems, starting with TL = 1 and going through TL = 3.5 to 4.5.

6. What are two possible causes for the first collapse of the Peruvian anchoveta fishery in 1971-72?

7. What does the observed global decline of 0.05 to 0.10 trophic levels per decade in global fisheries landings imply?
8. Why is “fishing down marine food webs” considered to NOT be a good thing by the authors?

9. How does “fishing down marine food webs” simplify marine food webs?

10. Why have generally longer-lived demersal (bottom) fishes tended to decline faster than shorter-lived, pelagic (open water) fishes?

11. List five reasons why the world’s fisheries are overcapitalized.
12. Of the 363 million square kilometers of ocean on this planet, less than 7%—the continental shelves—are shallower than 200 m and some of this shelf area is covered by ice. The biological productivity of the shelves supports what percentage of global fish catches? What part of the ocean supports the rest?

13. What are the three reasons that aquaculture does not have the potential to meet the growing demand for fish or even to “feed the world”?

14. What do the authors suggest needs to be done to reverse the trends in global overfishing? What has been lacking so far to implement these changes?