Chesapeake Bay Governor's School 2013-2014 Senior Summer Reading Assignment and Questions Senior Research Project Assignment

Cod: A Biography of the Fish that Changed the World

by Mark Kurlansky

Answer the following questions in essay form in your Journal. These are **BIG** questions; be sure to answer the components of each using examples from your reading. Feel free to use outside research to develop your discussion further.

Questions

1. Wikipedia defines "**Sustainability**" as the capacity to endure. In ecology, the word describes how biological systems remain diverse and productive over time. "Arguably, this is the most important concept of your generation, as human population grows to staggering numbers, as food, water and energy resources are stretched, this idea of sustaining and preserving our Earth system for the future becomes critical."

The book *Cod*, in fact, is a tale of unsustainability, and the effect of mindless extraction of a natural resource from the sea. Looking at the depletion of global fish stocks, including the cod, it begs the question – why is this still happening? Using examples from the book *Cod*, discuss why you think people overharvest natural resources. Can you think of another resource that is currently being over-exploited with no mind toward conservation? (Give examples, site pages).

Thinking about what you have read in *Cod*, what do you think are the challenges to human nature in trying to achieve sustainability? What will people have to learn from this story to move beyond our extraction past into a resource investment future? Is there a way to use our knowledge of this history to avoid repeating the same mistakes?

- 2. The book *Cod* is also a story of exploration as Europeans moved from their own coast in search of prized fishing grounds and began to settle a New World. This journey had important historical, cultural and economic consequences. Discuss how cod and the cod fishery impacted some of these important issues, citing examples from the book. (Include early exploration, importance of cod to early colonies in the New World, impacts on trade and slavery, as well as the Revolutionary War and American Independence). How do you think the development of the New World would have been different without cod?
- 3. In 1902, overfishing for cod was conceded and by the 1940's conservation zones established. The 200-mile exclusion zone and fishing quotas were used to control both the catch and limit fishing by foreign boats. Over time, policy regarding the ownership and allocation of resources in the open (or high) seas has changed. What were some of

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the influential events mentioned in the book? What is the current policy for fisheries and other natural resources (like fossil fuels) extraction in the open ocean? Do you think the current policy is appropriate? Why or why not? This begs the question, "who owns the ocean"? Who do you think owns the ocean and how do you think resources in coastal and open ocean areas should be managed?

- 4. Kurlansky writes, "Technology never reverses itself. It creates new technology to confront new sets of problems". As you read through the book, list the new technologies used by the fishing industry and describe some of the 'new problems' that were confronted. What are the benefits and drawbacks of using new technologies? Can you think of an example when technology has been reversed? (Cite examples and reasoning for the reversal).
- 5. On page 204 Kurlansky writes "Man wants to see nature and evolution as separate from human activities". How is this true for the cod industry? Give another example of the way humans separate their actions from impacts on the environment. Why do humans separate actions from the environment and how do we go about changing that mindset?

Senior Assignment:

Summer Research Project and Journal

Throughout the summer you should be working on your senior project. You need to keep notes, data, pictures, and observations about your research project activities. **Do not wait until the last minute to start your project. We expect you to show up in August with considerable progress made and some data.**

Your summer research project assignment is listed below. This assignment may be completed as a section in your Project Binder, or as a separate document. Create a Senior Project Journal. Your journal should include the following:

- At least 5 separate entries (minimum 2 paragraphs) containing information about what you were working on, how your experimental set-up is going, data collection trips, and problems you encounter.
- A neat data sheet (can be typed or hand written) with data you have collected. Make sure you include important information such as date, time, weather, tides (if applicable), location, and do your best to make all measurements in metric (mm, cm, m, mg, g) units.

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- At least 5 pictures of you doing your project. These should include any experimental set-up, field sampling, close-ups of organisms and data collection.
- A timeline that details your remaining data collection and research. You want to be able to let your MES II teacher know where you are in your project, what you have left to do, and what you have learned along the way.

Please come to class the first day of orientation (8/26) with your project journal assignment completed. Summer reading questions from *Cod* will be due the first week of classes.