

## Building Language Skills with The Seattle Times

October 1, 2015

**Article: “Seafood 101: Seafood and Our Changing Ocean: The Blob—Warm Ocean Waters off our Coasts and El Niño Signals More Changes for the Pacific”**

**Sunday, September 27, 2015** in the e-Edition of The Seattle Times, special section pages J4 and J5

### **Pre-Reading:**

Before reading the article, read the title and look at the photographs. What do you already know about El Niño? What do you think the red color indicates in the photograph on page 5?

### **Vocabulary:**

As you read, look for the following vocabulary words that appear in today’s article. Write down what you think the words mean based on the “context,” or how the words are used in the sentence in which they appear. Next, look up the definitions in a dictionary and see how close your guess was for each word.

*cascading*

*equatorial*

*plankton*

*emaciated*

*ecosystem*

*signatures*

*trade winds*

*profound*

*jet stream*

*ridge*

*species*

*juvenile*

*phenomenal*

### **Comprehension:**

1. What is the Blob?
2. When did the warm water make its way to Baja in Southern California?
3. The extreme warm water of the Blob is the result of what two climate events?
4. What is the danger of the huge algae blooms off of Alaska and the U.S. West Coast?
5. As a result of the Blob, where are some tropical species now being found?
6. What are NOAA Fisheries scientists doing to better understand how fisheries may be affected if warmer waters become the new norm due to climate change?
7. What is El Niño?
8. What are the signatures of El Niño?
9. When does El Niño have its most profound influences on the West Coast and over North America?
10. How will El Niño interact with the Blob to affect the climate in the Pacific Northwest?
11. How will the warm ocean water of the Blob affect salmon of the Pacific Northwest?

### **Post-Reading:**

**Read the following passage from the article and discuss the following questions in a group:**

**“The winners looks to me like the sport fishing community in Southern California. They’ve had phenomenal fishing for a year and half now on all these warm-water species: Bluefin tuna, yellowtail, yellowfin tuna, mahi mahi, the occasional marlin. It’s like having a Baja fishery right out the door of Los Angeles and San Diego. That may continue or even increase, and it will likely spread up the coast of California.”**

Do you think the sport fishing community of Southern California is a “winner?” Why or why not? How is their “win” a loss for other communities? Based on what you’ve learned about the Blob and El Niño, where would you most like to live?

### **Building Language Skills:**

**Read the following passage, and complete the activity below:**

**“As the El Niño continues to develop in the tropics, a jet stream pattern will replace the ridge of high pressure in the Gulf of Alaska associated with the creation of blob with a trough of low pressure. In many El Niño winters of the past, the jet stream and the storm track is pointed at Southern California, generating storms that pull a lot of heat out of the North Pacific. It brings incredibly warm mild air into the Pacific Northwest that affects the climate there.”**

Research The Seattle Times, its archives ( [http://nl.newsbank.com/nl-search/we/Archives/?p\\_product=HA-SE&p\\_theme=histpaper&p\\_action=keyword](http://nl.newsbank.com/nl-search/we/Archives/?p_product=HA-SE&p_theme=histpaper&p_action=keyword) ) and other news sources for the history of El Nino. What affects has it had on the Pacific Northwest in the past? How the emerging climate pattern related to the Blob similar or different? What are the current and predicted future effects of El Niño?

### Comprehension Question Answers:

1. The Blob is a pattern of high pressure over the Gulf of Alaska that reduced the loss of heat from the ocean to the atmosphere and created a large pool of warmer than normal water in the center of the Gulf of Alaska in the fall of 2013.
2. The warm water made its way to Baja in 2014.
3. The two climate events are the Pacific Decadal Oscillation, a 20–30 year climate pattern, which is shifting into a warm phase in the North Pacific; and an El Niño, which happens every three to seven years, in the equatorial Pacific.
4. Some of the algae have produced harmful toxins, causing closures of recreational and commercial harvesting of shellfish.
5. Tropical species from plankton to whales are being found further north than normal.
6. NOAA Fisheries scientists were on the water off Alaska this past summer conducting studies and are producing models to better understand how fisheries may be affected if warmer waters become the “new norm.”
7. El Niño is a climate pattern that brings warmer ocean temperatures to the central Pacific Ocean near the equator.
8. The signatures of El Niño right now are extreme and in the tropics. Those signatures include very warm water in the eastern half of the tropical Pacific, much weaker than normal trade winds and a dramatic shift in areas of heavy rainfall in the tropics.
9. El Niño has its most profound influences on the West Coast and over North America in fall and winter.
10. As the El Niño continues to develop in the tropics, a jet stream pattern will replace the ridge of high pressure in the Gulf of Alaska associated with the creation of Blob with a trough of low pressure. It brings incredibly warm mild air into the Pacific Northwest that affects the climate there.
11. A warm ocean is not an ideal habitat for juvenile salmon or maturing salmon of the Pacific Northwest because they don't get the nutrition they need. Salmon will then be driven deeper in the ocean or to other places.