**Article of the Week (AoW) Directions**

1. Mark your confusion – either highlighting or underlining.

2. Mark up the text. Annotate the article with comments, questions, inferences, etc. You can use a variety of sentences, phrases, and symbols to show your thinking.

3. Write a developed paragraph response to one of the prompts below.

**More than half the world’s sea turtles have eaten plastic, new student claims**

Source: Rachel Feltman/Washington Post/September 25, 2015

Ugh, humanity.

According to a new study, half of the sea turtles on the planet have ingested some form of plastic. This comes just days after another study (with some of the same researchers involved) reported similar findings in seabirds - some 90 percent of which have consumed plastic.

The new study, led by Qamar Schuyler of the University of Queensland and published in Global Change Biology, estimates that 52 percent of sea turtles worldwide have eaten plastic debris, some 13 million tons of which is dumped into the ocean every year. The east coasts of Australia and North America, Southeast Asia, southern Africa and Hawaii seem to be particularly dangerous. Schuyler used a combination of predictive models and actual necroscopy evidence to reach her conclusions.

First, Schuyler told The Washington Post, her team made a model of marine plastic distribution based on found debris. Then they overlaid the distribution of turtle populations over this model, to see how much debris species would likely encounter. Published sea turtle necroscopies were then factored in, to see how likely it was for turtles to ingest certain amounts of plastic based on the congestion of plastic in their area.

Olive Ridley Turtles (Lepidochelys olivacea), which eat jellyfish and other floating animals in the open ocean, were shown to be at the most risk. The species is considered "threatened" in most parts of the world, but is actually already endangered off the coast of Mexico because of poaching.

According to Schuyler's research, we need to protect these creatures from more than just poachers -- we need to protect them from our trash.

"Turtles can be killed directly by ingesting plastics, through blockage of the intestines or through piercing of the intestinal wall," Schuyler said. They can also die because of toxic chemicals that were used to create the plastic, or that were absorbed during the plastic's journey through the ocean.

Perhaps most distressingly, turtles can starve to death because they feel full after swallowing plastic debris.

"Currently plastics are being produced at an exponentially increasing rate, but globally our waste disposal technology and capacity is not increasing at the same rate," Schuyler said. "Plus we now know that unseen micro plastics are entering the oceans from our cosmetics, from the clothing we wear, and from fragmentation of larger plastic particles. Unless we take substantial action, the problem is bound to increase."

Schuyler pointed out that the recent study on seabirds showed that a decrease in plastic concentration leads to a decrease in consumption of it, which gives her hope that we may be able to turn the tide.

To make a difference, she said, consumers should just say no to single-use plastics, like grocery bags and disposable water bottles. And microbeads, which are present in many cosmetic products, are a big no-no.

"We now know that both sea turtles and seabirds are experiencing very high levels of debris ingestion, and that the issue is growing," Chris Wilcox, lead author of the seabird study, said of the new research. "It is only a matter of time before we see the same problems in other species, and even in the fish we eat."

**Respond to one of the following prompts. Use the a separate sheet of paper.**

1. What could be the last consequences if animals like the sea turtle become extinct due to pollution? Explain.
2. Does learning about the risks and dangers to sea life of using plastic products like water bottles and grocery bags make you reconsider your use of these products? Why or why not?
3. Select a word, phrase, sentence, or paragraph and respond to it.