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FROM: DEEPEND Science Team

Sent: Summer 2016

To: DEEPEND Virtual Team Leaders

Subject: Counting crustaceans with Team Crusty

Dear Virtual Science Team,

Hello from Team Crustacean! What is a crustacean? Shrimp, lobsters, crabs, and crawfish are example of crustaceans.

As part of Team Crustacean or "Team Crusty" as we lovingly call ourselves, I collect, identify, and count crustaceans in the deep. Why?

One reason involves a giant oil spill. In 2010, the DeepWater Horizon oil spill occurred deep in the Gulf of Mexico. It was the largest oil spill in United States history. What did it do to the environment? We don't know. Why? Scientists didn't have any data about the Gulf of Mexico deep sea from BEFORE the spill.

Seems unbelievable, doesn't it? It's true. Did you know that scientists know more about the surface of the moon than the deep ocean? People have explored only 5% of the ocean. There is so much we need to learn in order to protect it.

The good news is, within a year after the spill we did a lot of studies. Now the DEEPEND Team is doing more studies. By comparing the information that we gather now with the data that we got 4 years ago, we'll be able to tell 1) how badly the oil spill affected this ecosystem and 2) if it's recovering from the spill.

We see some incredible crustaceans out here. They are definitely not your ordinary grocery store shrimp. Take a look at just a couple of the remarkable deep-sea crustaceans we're finding. Because everything likes to eat them, you might notice that the bigger ones have spines and horns (known as a "rostrum" in crusty-speak). These horns and spines make them unpleasant to eat. Aren't they amazing?

While Team Fish and Team Cephalopod (the scientific name for squids and octopods) think

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Counting crustaceans with Team Crusty Continued

that their animals are the most important, I think the crustaceans are the most important. That's because there are so many and everything likes to eat them. Adult and larval (baby) crustaceans are a favorite meal of many ocean animals including fish, squid, seabirds, whales, and more. As you might guess, crustaceans are an essential part of the food web.

So, Virtual Science Team Members, I have a couple questions for you. Why do you think it is important that we know what species and how many live in the deep? How would you count shrimp deep in the sea? I'd love to hear your answers.

I better get back to sorting and identifying crustaceans. Talk to you soon,

Tammy

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Creep into the DEEPEND Mission



