

Toxic and Harmful Algal Blooms *"Tiny but Mighty"*

The food web you created in the food web game included producers and consumers, but it didn't include all of the types of organisms that play a role in the food web. Decomposers also play an extremely important role in the food web. What are the decomposers? Bacteria! That's right, just like the bacteria in every terrestrial environment, bacteria also live in the marine environment. And just like terrestrial bacteria, marine bacteria are EVERYWHERE and impact EVERYTHING! In their role as decomposers, they break down dead plant and animal matter and release simple molecules that can be absorbed and used by autotrophs and some heterotrophs.

Now that you know what the decomposers are and what they do, place them on your food web from the food web game, and draw arrows to show how they interact with the other organisms in the web.

Bacteria play other roles in the marine environment as well. They are integral to nutrient cycling in the marine environment. Also, some bacteria are producers; they produce organic matter from inorganic matter through photosynthesis and chemosynthesis. To learn more about the importance of bacteria in nutrient cycling, and production, visit Bigelow's web site, "Cycling Through the Food Web" (<http://www.bigelow.org/bacteria>).