

Plastic Trash Threatens Seabirds

Even isolated colonies of Pacific albatrosses can eat a stomach-full of plastic trash.

Recall the Ecology Disrupted curriculum learning goals:

1. Human daily life can disrupt ecological function leading to environmental issues.
2. Scientists can collect data to investigate human impact local ecology.

Students watch additional Science Bulletins videos to learn about how human daily life can affect ecological function, and to pull out the ecological principles. An introduction to the video and background information are provided below.

While watching the Bulletins they will complete a graphic organizer with the following questions:

1. How have people changed the habitat in this example?
2. Why do people change the habitat? How does it help us?
3. How do the habitat changes impact populations in this area?
4. How do you know that the habitat is being changed and that local populations are affected? Describe the evidence or data.
5. Suggest how to solve this problem.

Introduction

"Have you ever littered? Where does your litter go? Mostly to New York City beaches, but sometimes your litter ends up in the middle of the ocean. If you live out in California, your trash might end up affecting seabirds trying to raise their babies way out at sea. We are going to watch another *Science Bulletin*. This one will be about plastic trash that threatens seabirds. Get ready to fill out your graphic organizers."

Background Information

Biology: Laysan Albatross are a species of albatross that live in the North Pacific Ocean. These seabirds nest in huge colonies of 400,000 breeding pairs and are able to travel great distances to forage for food. Their young stay at their nesting sites and their parents feed in the Pacific Ocean, fly back, and regurgitate food for their young.

Eating Habits: Laysan albatross and other seabirds eat a variety of squid, fish, jellyfish, and mollusks.

Pacific Gyre/Western Garbage Patch: The Pacific Gyre or Western Garbage Patch is a large area in the Pacific Ocean that contains immense amounts of human trash. Wind and ocean currents sweep debris from Asia and the western coast of the United States, like California, into one huge area in the Pacific Ocean. Most of the floating trash is non-biodegradable plastic trash.

Affect on Seabirds: Adult seabirds mistake the plastic for food. They regurgitate the plastic to their young, often killing them. This habit has led to a decrease in the size of seabird populations in the North Pacific.

Atlantic Ocean Garbage Patch: The Atlantic Ocean has a smaller garbage patch in the Sargasso Sea, which has plastic trash from the East Coast of the United States including New York City.