Effects that Plants and Animals Have on the Environment

Most plants and animals live in areas with very specific climate conditions, such as temperature and rainfall patterns, that enable them to thrive. Any change in the climate of an area can affect the plants and animals living there, as well as the makeup of the entire ecosystem. Some species are already responding to a warmer climate by moving to cooler locations. For example, some North American animals are moving farther north or to higher elevations to find suitable places to live. Climate change also alters the life cycles of plants and animals. For example, as temperatures get warmer, many plants are starting to grow and bloom earlier in the spring and survive longer into the fall. Some animals are waking from hibernation sooner or migrating at different times, too.

As the Earth gets warmer, plants and animals that need to live in cold places, like on mountaintops or in the Arctic, might not have a suitable place to live. If the Earth keeps getting warmer, up to one-fourth of all the plants and animals on Earth could become extinct within 100 years. Every plant and animal plays a role in the ecosystem (for example, as a source of food, a predator, a pollinator, a source of shelter), so losing one species can affect many others.

Climatic changes endanger whole food chains. For example, some hibernating animals have been observed to wake up earlier or to stop hibernating all together. These animals require food when they are awake, and this need to eat endangers the animals since the food may not be there. It also puts them in competition with other species in need of the same scarce food resources.

Writing Activity

1. How does climatic change endanger whole food chains?

   _____

   _____

   _____

   _____

   _____

2. What would happen if the Earth keeps getting warmer?

   _____

   _____

   _____

   _____

   _____

3. Write two affects that a climatic change can cause.

   _____

   _____

   _____

   _____

   _____

4. Some species are already responding to a warmer climate by moving to cooler locations. Is this statement correct? Support your answer by giving one example.

   _____

   _____

   _____

   _____

   _____