

Self-Check: The Oceans and Climate Change

Directions: Write an answer to each of the questions below.

Questions

1. What evidences indicates that the oceans may already be releasing carbon to the atmosphere?
2. What role do the oceans play in mitigating global warming? How is that role being disrupted?
3. Summarize the effects of melting sea ice on people and wildlife.

Answers

1. Evidence from carbon isotopes in the bodies of microscopic marine organisms, and evidence from seafloor sediments, reveals that the oceans are already releasing carbon to the atmosphere.
2. The oceans can store large amounts of carbon, but that role may be diminished if the oceans become too warm and start sending carbon back to the atmosphere. That carbon (in the form of carbon dioxide gas) is a greenhouse gas that traps heat and contributes to global warming.
3. Melting sea ice takes away habitat from animals and disrupts their feeding and migration paths. It also harms the people who depend on these animals for hunting. Melting ice can also contribute to rising sea levels and shifted shorelines, which can displace cities and lead to more flooding of coastal towns.