

EXPLORATION 2: ENERGY FLOW IN THE NATIONAL PARK

Main Problem

Migratory and resident species rely on resources found in habitats that make up ecosystems. Survival of migratory shorebirds depends on ecosystem resources. The *Nationalpark Schleswig-Holstein Wattenmeer* is a critical refueling stop for migratory birds.

Guiding Question

What ecosystem resources are available at the national park, and how is energy transferred through various habitats at the Wadden Sea?

Background Information on Habitats

Migratory and resident species depend on the *Nationalpark Schleswig-Holsteinisches Wattenmeer* for habitat services including food, water, and shelter. The various habitats of the park are connected as an ecosystem. Begin by exploring the habitats of the park and the inhabitants. Then apply definitions of biotic and abiotic to identify factors that make the habitats an ecosystem.

An [ecosystem](#) is a community of living things and their physical surroundings. As you and your classmates traveled along your migration pathways, you passed through multiple ecosystems. Use observations from your migration to explain how changes in one ecosystem might affect another ecosystem.

Consider the Following

Predators, humans, weather, and [invasive species](#) may affect conditions in an ecosystem. Effects may be positive, leading to individual survival, or negative, leading to individual death. Effects may be short term or long term, and may cause changes in numbers of shorebirds for a year or for decades. Work collaboratively with your classmates to gather evidence of how events in one ecosystem may affect other connected ecosystems. Consider the following change agents: predators, humans, weather, and invasive species.