Unwanted Guests: The Dangers of Invasive Species (2016)

Groups of different animals affect one another in the natural world. For example, imagine that wolves and deer live in an area. A certain number of wolves need to eat a certain number of deer to survive. This keeps the population of the deer from getting too big. Similarly, the deer eat grass and vegetation. If there were more deer, they'd need to eat more grass.

The natural world is full of balances like these. Unfortunately, sometimes these balances are upset by invasive species. An invasive species is an animal or plant that has moved or been moved from its original environment to a new one. It has established a stable population there that is causing problems. Invasive species don't cause problems in their original environments because they are kept in check by other plants and animals. In new environments, though, they have nothing stopping them from taking over.

One example of an **invasive** species is the zebra mussel. This animal originally only lived near Russia. Zebra mussels got into the Great Lakes by attaching themselves to the bottoms of ships. They now live in the Great Lakes too, where they upset the ecosystem. Zebra mussels eat algae, but so do fish. Many fish die as a result of there not being enough algae for all the animals to eat.

Plants can be invasive species too. Another example of an invasive species is the kudzu vine. Humans introduced the plant to the United States on purpose. Farmers were encouraged to grow it to protect their soil. Since then, it has gotten out of control. It now covers large parts of the South, outcompeting native plants for resources like water and sunlight.

Invasive species can cause environmental problems that are very difficult to fix. Because of this, it's important to rethink introducing any species to a new environment. It's also important to check to make sure when traveling that you are not bringing any plants or animals with you!

Rabbits, Stoats, and Kiwis: The Ecology of New Zealand (2016)

The island nation of New Zealand is unique. Many of its animals and plants are found nowhere else. The kiwi is one of the most famous of these animals. This small, flightless bird dwells on the ground. It has tiny wings with which it is unable to fly. Kiwis belong to the same biological family as ostriches and emus, but they are much smaller than their relatives. Kiwis have round bodies and long beaks, and their brown feathers are very long and thin. Because of this, at first glance, someone who has never seen a kiwi before might think it has fur!

New Zealand is particularly fond of the kiwi. It is the country's national bird. New Zealanders are even sometimes referred to as "kiwis." Unfortunately, the kiwi is in danger due to changes humans made to New Zealand's environment.

Hundreds of years ago, European colonists decided to bring rabbits from Europe to New Zealand. They wanted to hunt them for food and for sport. Unfortunately, their plan succeeded too well. In Europe, other animals in the food chain eat rabbits. This keeps their population in check. In New Zealand, though, no animals ate rabbits. So, their population grew to an enormous size. There were way too many rabbits!

The colonists tried to fix the problem by bringing another animal to New Zealand. Since none of New Zealand's animals ate rabbits, the colonists imported one from Europe that did: the stoat. Stoats are small, carnivorous mammals similar to weasels. They eat rabbits, as well as birds and their eggs. Bird scientists warned the colonists to reconsider their plan, but the plan went forward—to the kiwi's detriment.

New Zealand's islands historically lacked predatory mammals. Because of this, kiwis' flightlessness never put them at a huge risk of being hunted and eaten. This was the case until the stoats were released. The stoats began to eat the kiwis and their eggs in huge numbers. The kiwis had no way of protecting themselves from the stoats. As a result, their population plummeted.

To this day, stoats threaten the kiwi population in New Zealand. To protect native wildlife, residents have to tried to use various methods of trapping and hunting to limit the size of the stoat population. Certain areas have also been fenced in to keep stoats away from native birds like the kiwi.

To function, environments maintain a careful equilibrium between predators and prey. Altering this balance purposely or accidentally can have serious consequences.