4 Invasive Species

Species enter new areas in several ways. In the case of the cane toads, people intentionally introduced them to Australia for pest control. In some cases an organism is carried accidentally with cargo that is being transported from one place to another. In other cases, organisms are carried on the wind and on currents in rivers, lakes, and oceans. If a species is introduced to an area where it is not naturally found, it is referred to as **nonnative**, and is also known as *exotic* or *non-indigenous.* The specific location where an organism lives within an ecosystem is its **habitat**. This is different from an ecosystem, which refers to all of the biotic and abiotic factors interacting in one location. Within an ecosystem, the population of a native species may decline, and even become locally extinct when an introduced species begins to take over the same role in a habitat. This, in turn, decreases the native biodiversity of the area.

Many crops and animals currently found in the United States are nonnative, including wheat, potatoes, soybeans, honeybees, cows, sheep, and goats. In fact there are approximately 50,000 nonnative species of organisms in the United

a

b

c

d

Many species commonly found in the United States are nonnative and invasive, such as the brown tree snake (a), honey bees (b), ice plant (c), and eucalyptus trees (d).

States today, of which about 4,300 are regarded as invasive. For a nonnative species to be considered **invasive,** it must cause harm to the economy, the environment, or human health. Invasive species often diminish the sustainability of an ecosystem by consuming resources and upsetting the typical interactions between species.

Challenge

How do certain characteristics increase the likelihood that a nonnative species becomes an invasive species?

MATERIALS

FOR EACH STUDENT

Student Sheet 4.1, "Invasive Species Information"

Literacy Student Sheet 6, "Discussion Web"

Procedure

Part A

1. On the following pages are four case studies of particular invasive species. Decide in your group who will read each case study.
2. Use the information from the case studies to complete Student Sheet 4.1, "Invasive Species Information," as you read about your assigned species.
3. Compare your results with those of the members in your group who studied the other three invasive species. In your science notebook, write down any similarities that you see among the case studies.
4. As a group, use these similarities to develop a list of characteristics that you think increase the potential of a nonnative species to become invasive. Write the list in your science notebook.
5. Follow your teacher's directions on when and how to share your group's thinking with the rest of the class. As a class, decide on the characteristics that increase the likelihood that a nonnative species will become invasive.