

Unit L1 • Populations in Balance

Scene: Snake Invaders

Setting: Elena, Rachel, and Miles are waiting outside to be picked up from school. Elena spots Rachel's dad's car, but doesn't recognize the driver.

Elena: Where's your dad? Who's that driving his car?

Rachel: My dad can't pick us up today, so my cousin is driving.

Miles: What? Didn't your cousin just graduate eighth grade last year?

Rachel: No, my other cousin, Rob. He's a pilot in the navy and is visiting us while he's on leave.

Elena: Was he in a war zone?

Rachel: You should ask him. Hi, Rob!

Rob: Hey, Rachel! Long time no see! Uncle Steve sent me over to pick you and your friends up. Hop in.

Rachel: Yeah, I know. He texted me. Thanks.

Elena, Rachel, and Miles get into the car.

Elena: I hope I'm not being rude by asking, but were you in Afghanistan?

Rob: Nope, I'm stationed in Guam.

Miles: Guam? Where's Guam?

Rob: It's kind of near Hawaii.

Miles: Must be a nice place.

Rob: It's okay, but it's full of snakes.

Elena: No way! I hate snakes!

Rob: No kidding. Especially the brown tree snakes; they're everywhere! They're in the trees, in the bushes... Heck, I even found one in my bed once.

Elena: Do not tell me that.

Rachel: Can't people just get rid of the snakes?

Rob: They're trying. A lot of people use snake traps or dogs but nothing seems to work. You're not going to believe this, but just before I came here the Navy had me fly a helicopter over the jungle, and folks were chucking dead mice stuffed with poison out of the helicopter. The idea was to kill the snakes by having them consume the dead mice.

Elena, Miles, and Rachel: WHAT?

Elena: Did that really work? Do snakes eat dead mice? I thought they just ate live ones.

Rob: I knew you'd be interested in that, Rachel. Check out the newspaper article I brought you. It's there on the dash.

Rachel: *(reading)*

Government Drops Dead Poisoned Mice from Sky in Another Attempt to Kill Tree Snakes

*The U.S. Department of Agriculture experimented with a new method to reduce the **population** of the invasive brown tree snake. They put Tylenol tablets into dead mice, attached the dead mice to long strips of paper, and dropped them out of helicopters into the jungle. Acetaminophen is a chemical used in Tylenol and other drugs. It's safe for humans in normal doses but it is poisonous to snakes.*

*This environmental **disturbance** is due to snakes brought to Guam from the Solomon Islands by the military after World War II. Since then, the brown tree snake **population** has exploded. Government officials say Guam now has one of the densest **populations** of snakes in the world.*

Miles: That's crazy!

Rob: Yeah. They cause huge problems. Sometimes the power goes out because a snake damages the wires. They **prey** on pets and livestock. Keep reading.

Miles: Give me that newspaper, Elena! *(grabs it)*

Miles: *(reading)*

*The non-native brown tree snake eats reptiles, birds, and mammals. It is credited with driving many **native** bird species into extinction. Bird species such as the Sihek (Micronesian kingfisher), Chuguanguang (Guam flycatcher), Ko'ko (Guam rail), and chichirika (Rufous fantail) were all wiped out by the tree snakes. A few birds were captured before they went completely extinct. The Sihek and Ko'Ko are now being bred in captivity, with the hope that someday these species can be reintroduced to Guam once the island's ecosystem begins its **recovery**.*

*Scientists have also reported a huge decline in the **populations** of local mammals and birds. And since trees rely on birds to spread their seeds, the trees are also affected, thus demonstrating the **interdependence** of species on the island.*

Elena: I thought this was just disgusting at first, but it's actually a serious problem isn't it?

Rob: When I left Guam they had snake-sniffing dogs at the airport.

(continued...)

Elena: That's to prevent the snakes from going other places, right? That would be really bad!

Rob: I know that people in Hawaii are really worried about the tree snakes showing up there and wiping out the **native** wildlife.

Rachel: I don't get why snakes are such a problem. Aren't there some birds or animals that eat the snakes?

Rob: There's nothing on the island that eats snakes.

Elena: There aren't any **predators**? No wonder the snake **population** is so big!

Rachel: Wait, couldn't they just bring a **predator** from somewhere else to wipe out the snakes? Is there some sort of animal that **preys** on snakes?

Miles: Like a hawk? Couldn't they just bring those to Guam to eat the snakes?

Rob: There's no **native** hawk species on Guam. Wouldn't bringing another non-native species cause even more problems?

Elena: Hawks might eat other things, too. I guess you can't tell them to just eat snakes.

Miles: What about using a disease that affects snakes?

Rob: That sounds kind of sketchy.

Rachel: Maybe the people on Guam should just eat the snakes.

Miles and Elena: Eww!

Rob: It's actually not bad.

Elena: I did NOT just hear that.

Respond in writing to the questions. Then compare and discuss your answers with someone else.

 Complete the following sentence to summarize the problems on Guam:

The government is trying to kill the brown tree snake because _____

 The newspaper article mentions that the brown tree snake **population** has exploded. This means that the brown tree snake **population** has:

- a) disappeared quickly
- b) decreased
- c) blown up
- d) increased dramatically

 The newspaper says that the brown tree snake "is credited with driving many **native** bird species into extinction." This means that the species:

- a) no longer exist
- b) are hiding
- c) were driven to another place
- d) are threatened

Discuss these questions with a partner:

 The article mentioned that Guam has "one of the densest **populations** of snakes in the world." Can you explain this in a different way?

 How might the government find out if dropping poisoned mice from helicopters is effective?

 Plants depend on bees for pollination, and bees depend on plants for food. This situation is an example of **interdependence**. What are some other examples?

 Do you think bringing a **predator** that **preys** on brown tree snakes to Guam is a good idea? Why or why not?