

Students should back up their answers with logic. However, it would seem prudent to pay attention when the population of a keystone species is falling in numbers.

Methods

- **Why do you think the scientists noted how many snags were in the patches?** *The snags are where the Black-backed woodpecker finds food. The scientists wanted to know the best conditions for the woodpecker. Since the woodpecker forages in these snags, the number of snags in each hectare may be one of the most important conditions for the woodpecker.*
- **Do you think it is important that the scientists used the same method in each patch to record the presence of the Black-backed woodpecker? Why or why not?** *Yes, it is important to use the same method so that results are reliable and are consistent across all of the patches studied. Otherwise, they could not be compared.*

Findings

- **Do you think that the number of large snags in each patch was related to the number of woodpeckers found there? Why or why not?** *Students should look at figure 8 and realize that an unlogged, high-severity burn, which is the only patch where Black-backed woodpeckers were found, had a much larger average number of large snags per hectare.*
- **Why do you think the woodpeckers preferred patches with large snags left standing?** *These patches would have even more snags available for foraging than the logged patches.*

Discussion

- **In your own words, describe the habitat the Black-backed woodpecker prefers for foraging.** *The Black-backed woodpecker*

prefers patches of high-severity burned areas with a lot of snags (preferably large ones).

- **Why is this research useful for forest managers?** *Forest managers can directly apply these findings to how they currently manage forests that have recently experienced a high-severity wildfire if they want to improve the foraging ability of the Black-backed woodpecker.*

Trust Is a Must

Introduction

- **Why is trust an important emotion in your life?** *Students should be encouraged to explore whom they trust and why this is important. Examples of people they may trust include parents or guardians, grandparents, siblings or other family members, teachers, doctors, friends, etc. Explore the advantages of trust, and how one must act to gain someone's trust.*
- **Do you think that forest managers can do a better job if citizens trust them? Why or why not?** *You may also frame this question using a trustee such as Congress, the Governor, the police, or other similar trustee. This question has no right or wrong answer, but students should be able to provide reasons for their position.*

Methods

- **Match the six questions in figure 5 with the three parts of trust in figure 2. Which of the three parts does each question address?** *This can be used in a general class discussion. The answers are: 1: Shared values (honesty); 2: Capable of acting correctly (capable, effective); 3: Shared values (justice, fairness); 4: Shared values (similar values); 5: Capable of acting correctly (capable, effective); 6: Act on their behalf (trustee interested in their well-being). If students have different interpretations, allow them to state the reasons for their positions.*

- **In today’s society, what are some disadvantages of using the telephone to ask questions of citizens?** *Students may come up with a host of reasons. Some include: 1: People no longer use land lines; 2) People are too busy to answer survey questions; 3: The phone may be busy or not answered because of caller ID.*

Findings

- **What are some of the positive things citizens had to say about forest managers?** *Citizens feel that forest managers are somewhat effective, reliable, and competent in managing fires. They think that forest managers are honest and care about citizens’ needs.*
- **What are some of the negative things citizens had to say about forest managers?** *They do not pay attention to what people think, citizens are not entirely confident in the way forest managers manage fire, and citizens are not completely satisfied with the way fire is managed.*
- **If you were the scientists, what would you tell the forest managers to do to increase the level of trust?** *This is an individual question, but students should realize that forest managers should pay more attention to what people think, should look for ways to raise the confidence in their actions, and should find out why citizens are not completely satisfied with the way fire is managed.*
- **Although all three parts were important, the scientists found that “the belief that others are capable of acting correctly” was the most important part of trust. Based on your own experience, which part do you think is most important and why?** *This is an individual question, and students should be able to back up their position with logic and sound reasons.*

Discussion

- **How can better communication build more trust between an individual and a trustee? Use an example from your own life.** *This is an individual question, and students may be urged to think about how they might improve communication to increase trust. Students may consider themselves as being the trustee, or the person who feels trust.*
- **Think about any public land close to your home. This can be a local park, a State park, a national park, or State or national forest land. Do you trust the managers to do a good job of managing the land? Why or why not?** *This is an individual question. Students should provide logic and sound reasons to support their position.*

Can We Grow Now?

Introduction

- **In the form of a question, state what the scientists wanted to discover.** *What are the best conditions under which bristlecone pine seeds take root and grow?*
- **Name two things that make it hard for Rocky Mountain bristlecone pine trees to survive.** *(1) These trees need occasional fire, which opens up areas for seeds to take root and seedlings to grow; (2) The trees take between 50 and 100 years before they produce seeds; (3) The white pine blister rust is threatening to kill the trees.*

Methods

- **Why did the scientists select their study sites randomly?** *Because the scientists needed to make sure that the site selection was unbiased. If the scientists selected the sites just by choosing them, they could be affecting their results through their own preferences. For example, they might always select sites with more bristlecone pine trees.*