

wildland-urban interface (WUI) communities describe and identify the boundaries of their WUI in a Community Wildfire Protection Plan?

- **How do you think the scientists answered their question?** *Students should have been clued in by “Thinking About Science.” The scientists interviewed people in four communities to answer their question.*

## Methods

- **A case study is a detailed look at one individual, one group, or one event. Think about something you have studied recently. How might you extend your examination by doing a case study? Who or what would you study?** *This is an individual question. Students should be urged to think of how they might learn more about something by doing a case study. For example, let’s say your class had recently studied earthquakes. A case study might be done of one community that had recently experienced an earthquake.*
- **Why would it be important to interview a variety of people in the community?** *People living in communities have different opinions and experiences. To truly understand what happened in the community, many different people must be interviewed.*

## Findings

- **Why do you think members of fire departments affected the way the WUI was defined and described?** *People working in fire departments would have a lot of information about fighting fires. They would know which areas were at greater risk of a wildfire. They would know the conditions of the roads and how long it would take for a fire engine to reach a fire.*
- **What was one benefit of having community members work together to define and describe their WUI?** *Differences of opinions could be discussed, and community members could come to an*

agreement. This eventually leads to a better plan, which offers better opportunities to protect areas from wildfires.

## Discussion

- **Think about the large areas of undeveloped land in the Western United States. Do you think most of that land could be considered the WUI? Why or why not?** *Students should realize that vast amounts of undeveloped land should not be considered the WUI, since by definition the WUI includes some buildings.*
- **Give another example of when getting together to discuss something resulted in a better plan of action.** *This is an individual question, and students should be challenged to think of something in their own life or something in the news. An example from current events would be worldwide discussions about planning for climate change or discussions about developing a nuclear weapons reduction plan. An example at the local level is community land use planning. In the classroom, students may have collectively discussed and subsequently planned an event.*

## Pecking Order

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### Introduction

- **In the form of a question, state what the scientists wanted to learn in this study.** *What types of post-fire snag forests were best for the Black-backed woodpecker’s foraging?*
- **In your own words, describe why a keystone species is important.** *Keystone species are important because they provide us with an early indicator that something is changing in the environment that may cause problems for other native species living there.*
- **Do you think it is important to improve the habitat for keystone species? Why or why not?** *This is an individual question.*

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

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### 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.*