

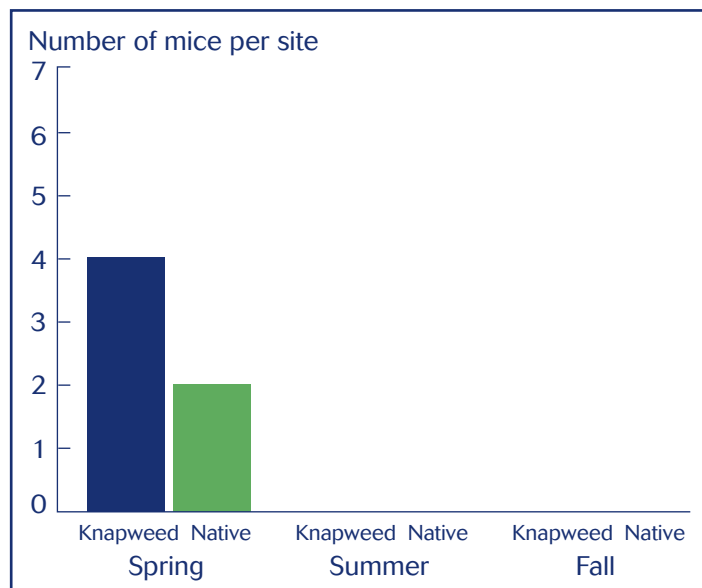


In this FACTivity, you will compare different ways of displaying research findings. You will answer the following questions in this FACTivity:

1. Which of two methods of displaying results is easier for you to understand?
2. Can the use of pie charts, rather than tables, help you better understand the results of an experiment?

You will use the following method to answer these questions:

1. Look at figures 8 and 9 in the article. You will be using these figures to create bar charts (also called histograms).
2. Create four bar charts using the information from figures 8 and 9. See the example below, taken from figure 8.
3. Compare your bar charts with the figures shown in this article. Hold a class discussion about the different forms. Are the bar charts easier to read? More difficult? Discuss how the same information can be shown



in different forms. Can you think of any other ways to display this same information? Answer the first question of this FACTivity.

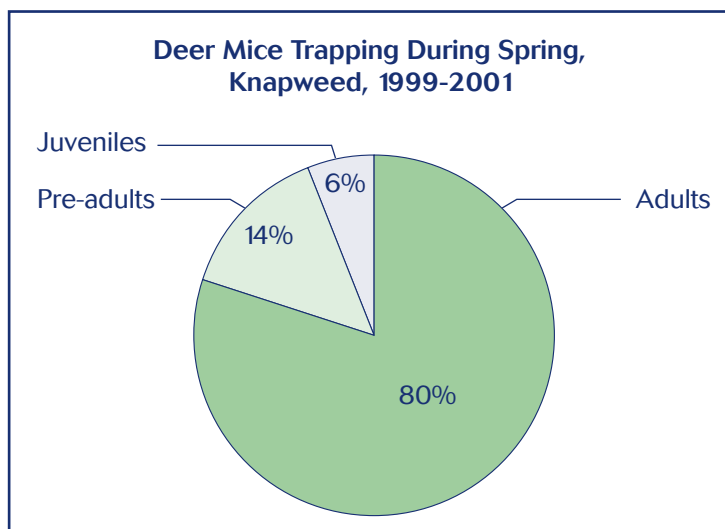
4. Examine the table on page 67.
5. After looking at the table, can you determine any patterns in the number of deer mice trapped by age class and season? If so, what are the patterns?
6. Complete the table by adding up the numbers in each of the two columns marked "Knapweed" and "Native" for each season. Total knapweed trappings in the spring is done as an example.
7. Using the total number as the denominator, determine the percentage of each age class for each season. For example, in the spring for knapweed trappings, the total of 106, 19, and 8 is 133. This number has been placed in the table for you. The denominator, therefore, is 133, and the numerators are 106, 19, and 8. To calculate the percentage represented by 106, divide 106 by 133. The answer is .796, or .80. You can see that .80 has been placed in the column next to 106. The other percentages have also been calculated for spring knapweed trappings. Fill in the shaded areas of the table with your calculations, like the example for knapweed trappings in the spring.
8. Create six pie charts based on the calculated percentages. Label each of your pie charts. See the example on page 67. This pie chart shows the information for spring knapweed trappings. To create the pie charts, you can use a computer program, such as Excel, or you can use a protractor.

Season and age class	Knapweed	Percentage	Native	Percentage
Spring				
Adult	106	.80	51	
Pre-adult	19	.14	7	
Juvenile	8	.06	3	
Total	133	1.00		
Summer				
Adult	83		45	
Pre-adult	26		19	
Juvenile	12		15	
Total				
Fall				
Adult	81		44	
Pre-adult	40		39	
Juvenile	25		19	
Total				

Number of deer mice trapped in knapweed and native grasslands by age class and season, 1999–2001.

9. After you complete and label your pie charts, revisit the question asked in #5, above. This time, use the pie charts rather than the table to describe the patterns.

10. Hold a class discussion about whether the pie charts helped you understand the findings of this research. What are the advantages of using charts and graphs over tables? What are the disadvantages? Reread the first paragraph of this FACTivity. What is the answer to question #2?



If you are a Project Learning Tree-trained educator, you may use PLT Forest Ecology Secondary Module #4, "Home Sweet Home," Pre K–8th Activity Guide #45, "Web of Life," and Activity Guide #43, "Seeds Will Travel," as additional activity resources. These activities introduce how nonnative insect control affects the web of life and how seed dispersal varies.