# Your Study: Community Science



### About

Your team asks people in New Mexico to help with your study. **Volunteers** watch their humming bird feeders at night to see if any bats come to drink.

If a volunteer sees a bat, they use a **DNA kit** to take a sample from the feeder. You test the sample to find out **which kind of bat** it came from.

## Advantages

Your volunteers live in different towns, so your study covers a **big area**. Look for the people symbols and the map to see where your volunteers live.

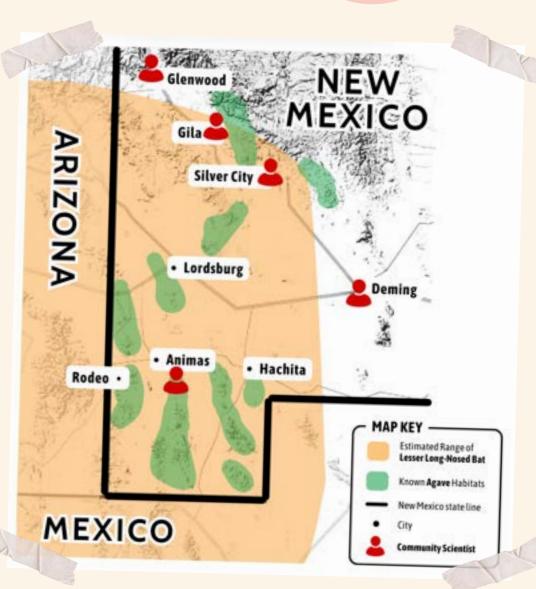
Your volunteers help for free, so this study **doesn't cost much money**.

## Disadvantages

Since all your volunteers live in towns and cities, you might **miss the bats that live in wild areas**.



- 1. Answer **questions 4 5** on your worksheet.
- 2. Open your envelope to view your results!



# Your Study: Sound Recording



### About

Bats make sounds to help them navigate, find food, and communicate. These sounds are ultrasonic, meaning they are too high for humans to hear.

Your team sets up three **bat sound recorders** near three mountains. Look for the recorder symbols on the map to see their locations. After your team gets the data from the recorders, a computer program will help you find out **which kind of bat** made the sounds.

Advantages

Your recorders work on their own. Once they're set up, your team can work on other things while you wait for the data.

Even though the recorders and computer program aren't cheap, this study **doesn't cost too much money**.

## Disadvantages

Since you could only afford to buy three recorders, your study covers a pretty **small area.** 



- 1. Answer **questions 4 5** on your worksheet.
- 2. Open your envelope to view your results!



# Your Study: Radio Tracking



### About

Your team catches **30** Lesser Long-Nosed Bats between two mountains. Look for this symbol : 章: on the map to see your study area. You attach **radio trackers** to each bat's fur and let them go. Your team works all night for the next two weeks listening for signals from the trackers.

With this data, you will be able to make a **map** showing where each bat was when you heard a signal from their radio tracker.

## Advantages

This study gives you **very detailed data** about where the 30 bats in your study flew each night.

### Disadvantages

The time and equipment needed for this study means it **costs a lot of money**.

This study is very detailed, but it only covers a **very small area.** 

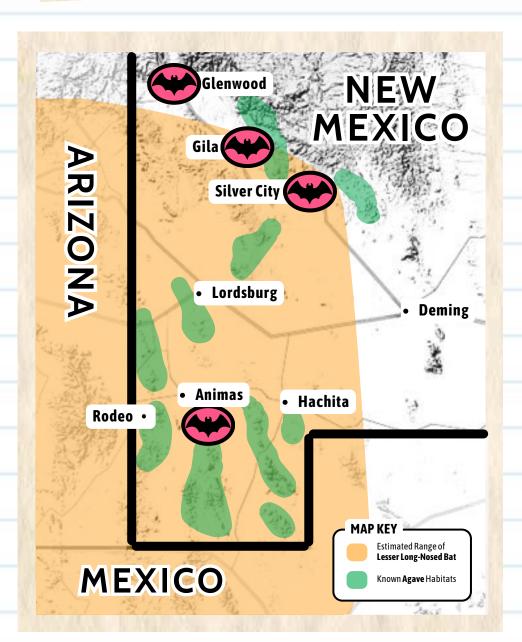


- 1. Answer **questions 4-5** on your worksheet.
- 2. Open your envelope to view your results!



# Your Results: Community Science





## Results



Four of your five volunteers saw bats visiting their feeders.

DNA tests showed they were Lesser Long-Nosed Bats!

Look for the bat symbols on the map to see where they

were found.



Lesser Long-Nosed Bats had never been seen as far north as **Glenwood** before, but your volunteer there found one! This discovery will help scientists protect these bats.

- 1. Answer question 6.
- 2. Wait for the class discussion.

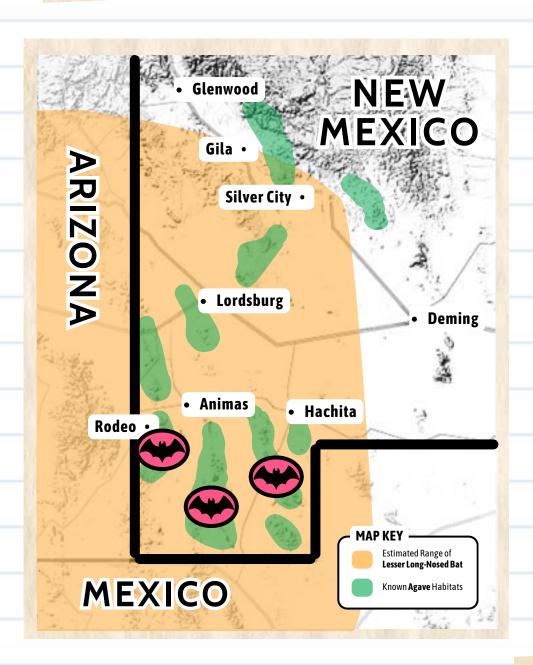






## Your Results: Sound Recording





## Results

Your computer program identified **Lesser Long-Nosed Bat sounds** from all three of your recorders!
Look for the bat symbols on the map to see their locations.

## Unexpected Discovery

Since other kinds of bats flew by your recorders, your program was able to identify those bats too. There were more kinds of bats living in this area than scientists knew about before.

- 1. Answer question 6.
- 2. Wait for the class discussion.







## Your Results: Radio Tracking







Your team was able to track your group of Lesser Long-Nosed Bats as they visited **one agave habitat!** 

Look for the bat symbol on the map to see its location.



The bats you tracked roosted in a cave that scientists didn't know about. This discovery will help scientists protect these bats.

- 1. Answer question 6.
- 2. Wait for the class discussion.





