

## Interim Report

**School Name:** Melrose Middle School

**Area of Science:** Ecology

**Project Title:** Quail Population

**Team Members:** Tate Hill, Brody McAllister, Brady Sorgen, Brandon Garcia, Dominick Harvey

**Sponsor:** Alan Daugherty

### Definition of the problem:

Our project is about the population of quail. It will represent the ecology of quail and how they live. Our team members are all hunters and we are interested in finding ways to have more quail for better hunts and determining how to hunt quail more effectively.

### Plan for Solving the Problem:

We are researching information by talking to local experts such as Fish and Game Officers to get research information about quail. We are making a NetLogo model to show the quail population in an area and to show how the population is increasing and decreasing. The variables we are using include: the number of quail present, vegetation amounts, quail food resources, quail reproduction rates, and quails predators (including hunters).

**Progress to date:** We have started research and we have started talking to experts to determine the information we need to form our model. We have begun preparing a model that shows all the variables we will include. We can then fine tune it to make it more realistic.

### Expected Results and Usefulness:

We intend to make a model that helps determine the population of quail and make quail hunting more successful.

Our finished model will represent the quail population of an area and how that population changes based on the amount of hunting and the amount of vegetation.

### Citations of Research:

1-[www.Biology.unt.edu/unt-quail/research](http://www.Biology.unt.edu/unt-quail/research)

2-[www.wildlife.state.nm.us/hunting/information-by-animal/upland-game](http://www.wildlife.state.nm.us/hunting/information-by-animal/upland-game)

3-[http://www.clemson.edu/extension/natural\\_resources/wildlife/publications/fs7\\_bobwhite\\_quail.html](http://www.clemson.edu/extension/natural_resources/wildlife/publications/fs7_bobwhite_quail.html)

4-<http://www.wildlife.state.nm.us/download/conservation/habitat-handbook/project-guidelines/New-Mexico-Quail-Habitat-Guidelines.pdf>

5-Interview New Mexico Department of Game and Fish Officer. Fall 2016.