

What role does genetics play in the variation seen in this leafhopper population?

Note the results from the 20th generation under global warming conditions. Before continuing with the 30th generation, predict the population composition of the 30th generation.

What happened to the proportion of each type of leafhopper in subsequent generations under global warming conditions? Suggest a reason why the traits of the 30th generation make this population better adapted to its altered environment.

Why would you expect a change in predators to cause a difference in the types of leafhoppers being selected?

Note the differences between the parental, 10th and 20th generations when the predator changed from a bird to a snake. What evidence supports the view that leafhopper size is not affected by a change in predators?

What happened to the proportion of each type of leafhopper in subsequent generations when the predator changed from a bird to a snake? Suggest a reason why the traits predominant in the 30th generation make this population better adapted to the change in predators.

Describe some human activities around your school that could have influenced the natural vegetation in the area.

Note the differences between the parental and the 30th generations. What happened to the proportion of each type of leafhopper when the vegetation changed? Suggest a reason why the traits of the 30th generation make this population better adapted to its altered environment.

Identify some major sources of pesticides in your area.

What happened to the proportions of leafhoppers in each subsequent generation when pesticides were added to the environment? Explain why all the leafhoppers were not killed by the pesticide application.