

Group Activity — Limiting Factors

This activity is to be completed in groups of 3 or 4.

Each of the statements below involves a situation that will affect the growth of a population. Classify each statement as DD (density dependent) or DI (density independent) and give a reason for your choice.

1. A lion and a cheetah attempt to live in the same area and hunt the same food. The more aggressive lion survives, the cheetah does not.

DD - competition

2. Coyotes cross the winter pack ice and enter Newfoundland. The moose population starts to decline.

DD - predation

3. A severe frost wipes out 50 percent of the coffee crop in Brazil.

DI - weather

4. Careless smoking causes a forest fire, which destroys much of the wildlife in a region of northern Manitoba.

DI - natural disaster

5. Due to severe overcrowding in an Asian village, many children do not survive to reach adulthood.

DD - competition

6. Since lynx prey on snowshoe hares, an increase in the hare population causes an increase in the lynx population.

DD - predation

7. A severe flood in the Red River valley causes a decline in the deer population.

DI - natural disaster

8. Due to stress, large numbers of female lemmings miscarry their young and fail to reproduce.

DD - competition

9. Travelers who visit a crowded African village become infected with a disease caused by parasites.

DD - disease / parasite

10. Many fish die due to a change in the winds and the appearance of the El Niño ocean current off the coast of Peru and Chile.

DI - weather

11. Rabbits in Australia have no natural enemies, so their population increases rapidly.

DD - predation (lack of)

12. Fish on a coral reef stake out their territory and chase away any younger fish that try to live there.

DD - competition

13. The illegal dumping of industrial pollutants into a river causes a massive amount of fish to die.

DI - pollution

