

Invasive Species Game

Adapted from: http://www.utoledo.edu/as/lec/gk12_grant/Invasive_Species_Game_.html

Materials:

- 4-cups
- 2-plastic knives
- 1-plastic spoon
- 3-forks
- 1-large binder clip
- 8 red pom-poms
- 10 black pom-poms
- 8 white pom-poms
- 3x4 piece of felt
- 20 bingo chips

Set-up the Game

1. Place the piece of felt on the table. Scatter the pom-poms randomly on top of the felt.
2. Select one species of native fish as your game piece. Collect your tools for feeding.
3. IMPORTANT! You may only hold your tools in one hand when you feed. So, if you have 2 knives or 2 forks you must put them both into the same hand.
4. Give each group member 3 bingo chips. These chips represent three lives.

Type of Fish	Feeding Style	Food type (pom-poms)
Perch	Plastic spoon	White only
Walleye	Two knives	White and red only
Blue gill	Fork	Black only
Bass	Two forks	Black and red only

Play the Game – Part A (A Stable Ecosystem)

1. You only have 30 seconds to collect food using your tools and one hand. During those 30 seconds, everyone in your group works as fast as possible to collect as much food as possible.
2. Remember – you may only collect the type of food your fish actually prefers to eat – you may NOT collect any other colors of pom-poms.
3. At the end of the round, count your pom-poms.
 - a. If you have 5 pom-poms, you have survived the round.
 - b. For every 3 pom-poms more than 5, you have one offspring, which counts as an extra life. Collect one extra bingo chip for this new life.
 - c. If you have fewer than 5 pom-poms you did not survive. Lose one bingo chip.
4. Repeat this process for 3 rounds.

Play the Game – Part B (Introducing the Invasive Species)

1. Set up the game the same way as in Part A.
2. One member of the group (the one with the fewest bingo chips) now becomes a Asian carp – an invasive species of fish that can eat anything in the reservoir. This person's fish for Part A is now extinct.
3. It is a great idea for the Asian carp to eliminate native species of fish, so you should try and eat the food that will hurt the native species the most (i.e. eating only white).
4. Play the game for 3 rounds just as in Part A. At the end of every round, count your pom-poms and determine how many chips you have. Any fish that is out of lives (chips) becomes extinct. That player becomes another Asian carp.

Answer the discussion questions.

DISCUSSION QUESTIONS

Part A

What species of fish were you?

How well were you able to compete with the other native species for resources (food) necessary to your survival and reproduction?

Part B

How well could the native species compete with the invasive species (Asian carp) for resources necessary for survival and reproduction? Why? What made the Asian carp so successful?

What could be the consequences of organisms entering an ecosystem?