

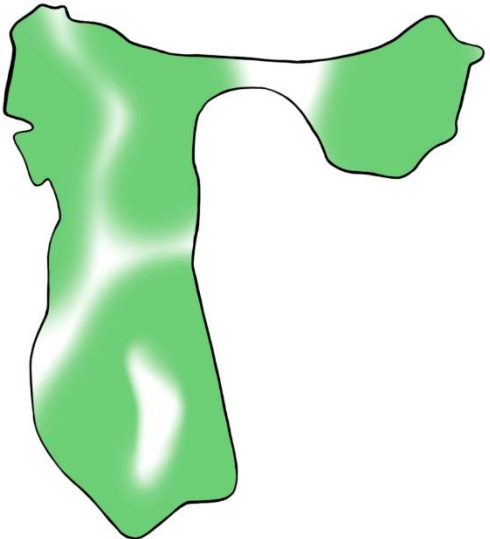
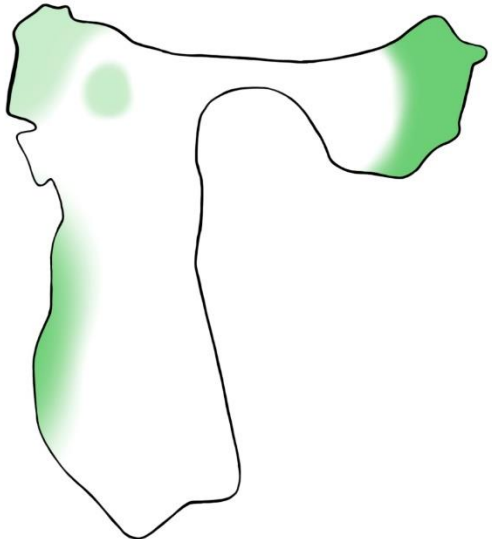
## Activity Guide for Students: Social Sharing

### Directions:

There are many benefits to working in a social group, from the ability to learn from others to sharing resources. However, there can also be disadvantages that come with working in a group. After reading the *Science News* article "[Macaques in Puerto Rico learned to share shade after Hurricane Maria](#)" for homework, answer the following questions.

- 1. How did the macaques behave before Hurricane Maria?**
- 2. How did Hurricane Maria change the landscape of Cayo Santiago?**
- 3. How did this change to the landscape affect the macaques' behavior?**
- 4. Why would this change in the macaques' behavior increase survival?**

5. There are three main population distribution patterns: clumped, random and uniform. Using the table below, add dots to represent macaques in the forested areas before and after Hurricane Maria. Shaded portions of the island indicate shade cover. Label each illustration as a clumped, random or uniform population distribution and provide an explanation for that label.

Before Hurricane Maria	After Hurricane Maria
	
Population distribution pattern:	Population distribution pattern:
Explanation:	Explanation:

6. What are some potential disadvantages of the new distribution pattern?

**Where do you stand?**

After you answer the questions about the macaques’ social behavior, participate in a “Where do you stand?” activity with your class. For this activity, you will have to decide whether you would prefer to be in a social group or alone for different given situations. Once you hear the situation, move toward the side of the room that best represents your answer.

**Optional: Survivability Survey**

Write a short reflection about how you and your classmates responded to the situations presented in the “Where do you stand?” activity.

## **Disturbances and Distributions**

After completing the “Where do you stand?” activity, write a paper about disturbances and how they may affect animal social behavior and population distribution. To start your paper, identify a social animal species and describe their social behaviors. Then, identify at least two disturbances that could realistically occur in this species’ habitat, one where social behaviors increase the rate of survival and one where social behaviors decrease the rate of survival. Finally, identify the population distribution before and after each disturbance.

