

Video 10 Scatterplots

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1. What is a manatee?

Manatees are sea animals that can be found by the Florida coast. Manatees eat vegetation that grows underwater. They're social animals.

2. What does a scatterplot show about the relationship between the number of powerboats registered in Florida and the number of manatees killed by powerboats?

The data confirms that as the number of boat registration rises, so does the rate of manatee deaths.

3. Why is the number of boats plotted on the horizontal axis of this scatterplot?

The variable that goes on the horizontal axis is what the researcher expects to explain the variable found in the vertical axis. In this particular example the researchers expect that that the number of powerboats in the water will explain the number of manatees killed, therefore the powerboats are plotted on the horizontal axis, known as the explanatory variable.

4. What trend would you expect to see in a scatterplot of two variables that have a negative association?

Visually on a scatterplot you would see a trend that begins on the upper left and slopes down toward the bottom right. The cause of this is that as the numbers rise on the explanatory variable (horizontal axis) the numbers fall on the response variable (vertical axis).