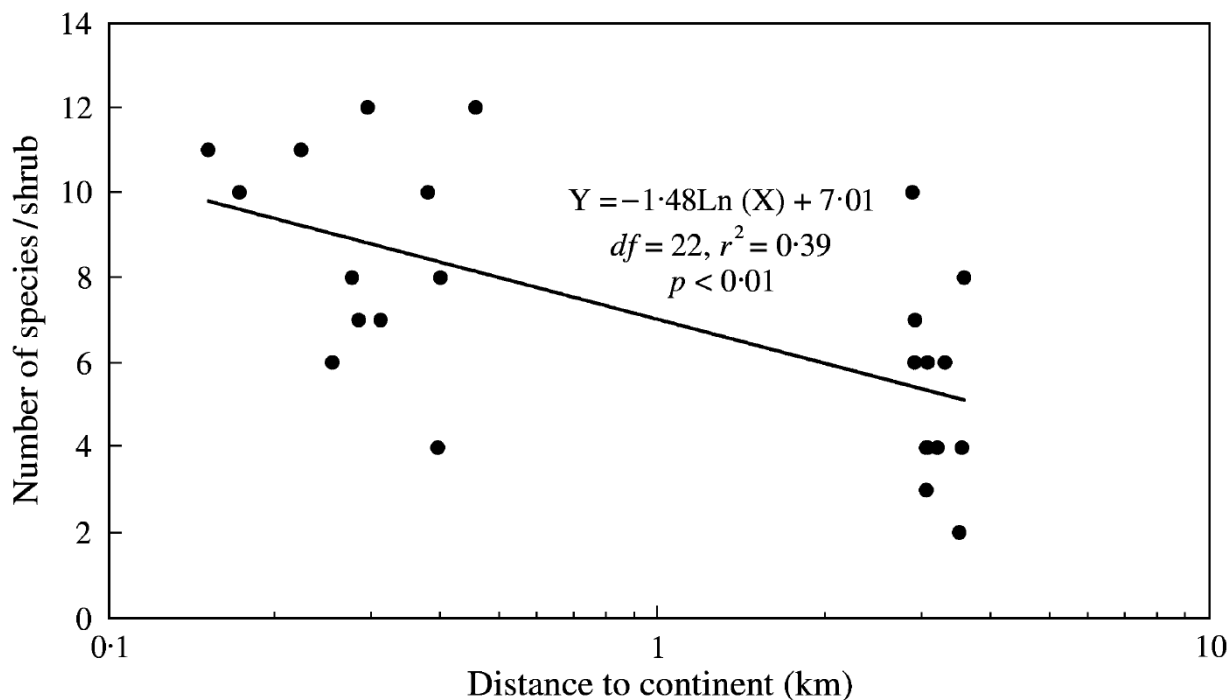




Habitat Isolation Impacts Arthropod Species



Caption: Numbers of specialist herbivore arthropod species found on isolated shrubs. The shrubs were at different distances from the “continent”: a dense clump of shrubs with many different species. Results from a linear regression analysis are displayed on the graph.

OBSERVATIONS, NOTES & QUESTIONS

Blank area for student observations, notes, and questions.

BACKGROUND INFORMATION	BIG IDEAS, NOTES & QUESTIONS
<p>How many different species will be found in habitats that are far away from other populations? Answering this question could help us better understand patterns in where species are found. It could also help us predict how many species will be lost from damaged habitats and design protected areas to save Earth’s remaining wildlife.</p> <p>To investigate the relationship between species number and habitat isolation (distance from a major source of species, such as another habitat with many populations), scientists studied species of arthropods — such as beetles, grasshoppers, flies, and moths — in a desert in central New Mexico, USA. They focused on arthropods that live on desert shrubs. Some of these arthropod species are specialist herbivores that feed and live only on these shrubs. The sand and grasses between the shrubs do not provide the food or shelter that these specialist species need to survive for long periods.</p> <p>The scientists counted the number of specialist herbivore arthropod species on individual shrubs. These shrubs were similar sizes but at different distances from a dense clump of shrubs that the scientists called the continent. The continent contained populations of many different arthropod species that could travel to other shrubs.</p>	