

Research: Change in one gene can alter landscape

A single plant or animal

gene can alter an entire landscape, say researchers at Northern Arizona University, who will talk about their findings in a documentary to be televised on PBS stations this week.

Understanding how organisms are connected at the most basic level might be able to help scientists find new ways to preserve biodiversity in an ecosystem, manage climate changes or repair damages to an ecosystem, such as a stretch of river overtaken by non-native species, the researchers say.

“Just as the ‘green revolution’ has used genetics to help feed the world, community genetics can be used to help save and restore natural ecosystems,” said Tom Whitham, executive director of NAU’s Merriam-Powell Center for Environmental Research.

The research findings emerged from a study of cottonwood trees, a vital piece of a desert riparian system.

Scientists examined how genetically distinct cottonwoods support different groups of organisms from the trees’ canopies down to their roots.

A change in a single gene could change the makeup of the entire system, researchers found.

The documentary will air Wednesday at 9 p.m. on **KAET**, Channel 8, in Phoenix and **KUAT**, Channel 6, in Tucson.

To find more about the research and the documentary, visit athousandinvisiblecords.org.

—Shaun McKinnon

