

# Environmental Review

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## Introducing Chinese Beetles to Control Tamarisk

Introduction:

Salt cedar, also called tamarisk, is a woody plant native to the eastern Mediterranean where it thrives in a hot, dry climate and on salty water. Salt cedar was introduced into the American Southwest in the 19<sup>th</sup> century to control soil erosion, and it now covers more than 500,000 acres in seventeen western states. It is considered a pest because it crowds out native plants such as cottonwood trees. Along stream banks in the arid Southwest the cottonwood/willow association historically provided habitat for a rich variety of animals, including the willow fly catcher, which was put on the endangered species list in 1995.

The US Fish and Wildlife Service is now attempting to control salt cedar and protect and recover willow fly catcher populations. The Catch 22 is, now that the willow fly catcher has lost most of its cottonwood willow habitat, the birds use salt cedar for nesting. There are one hundred-fifty pairs of willow fly catchers remaining in Arizona, and 90 percent of them nest in salt cedar. So removing salt cedar without replacing them with appropriate plants would leave the flycatchers without a home. FWS scientists are now conducting experiments with Chinese leaf-eating beetles to see if they might be safe to release

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into the wild. If they decide they are, they plan to let them loose in the hope that they will slow the advance of salt cedar in the Southwest.

Simply removing salt cedar does not mean that the native plant associations will come back. Livestock grazing and water management have changed the hydrology in much of the

Southwest to such an extent that even if all the salt cedar somehow disappeared, native plants would face drier, saltier, more heavily grazed land than it was one hundred years ago. We spoke with Professor Robert Ohmart about the plan to introduce exotic beetles to control salt cedar.

**ER:** Professor Ohmart, what is your job?

**RO:** I've been a professor of biology at Arizona State University for thirty years. When I started working on the lower Colorado River in 1972, one of the most dominant plant communities was the exotic plant salt cedar, and it's become more dominant as time has gone on.

**ER:** Where does salt cedar come from?

**RO:** Salt cedar came from the Mediterranean region, probably near Israel. Someone brought it over here in the 1800s, no one's exactly sure who or when. It was brought in as an ornamental and as a soil stabilizer. Salt cedar is an excellent soil stabilizer. As we have removed the water from the rivers here in the Southwest, stands of salt cedar will move into the river basin itself and begin to trap sediment.

**ER:** Why are cottonwoods dying back and salt cedar expanding?

**RO:** We have created, not intentionally, but we have created excellent ecological conditions for the establishment and naturalization of this species





























