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## Saltcedar

Saltcedar or tamarisk (*Tamarix ramosissima*) is an invasive tree/shrub that is common in many of Arizona's riparian areas (land near or adjacent to water). In fact, the Verde River and some of its tributaries are currently being invaded by saltcedar as are many other riparian areas across the west. Saltcedar is listed as a noxious weed in Arizona, Colorado, Montana, Nevada, New Mexico, Oregon, Wyoming, and California. Saltcedar is not a good plant to have in your landscape or to allow others to plant. You may also be interested in the impacts saltcedar is having on our natural resources.

Saltcedar grows 5 to 20 feet tall and often forms a multi-stemmed plant. The mature bark is brownish or black and the younger branches are often reddish or purplish. Leaves are scale-like (similar to juniper or cypress) and secrete salt. Flowers occur in clusters and range in color from creamy white to pink to reddish. They flower in spring and often flower again in summer. Abundant seeds are produced which are small and have a tuft of fuzz on the end. They are dispersed by wind, water, animals, and vehicles. One tree can produce 500,000 seeds per year. Saltcedar is winter deciduous and the abundant, salt-laden leaf litter inhibits the growth of other plants.



Saltcedar foliage. [Leslie J. Mehrhoff, University of Connecticut, Bugwood.org](#)

Saltcedar was brought to this country as an ornamental in the 1800's, but had escaped into many southwestern riparian areas by the 1920's. It has spread rapidly since that time. Estimates from 2003 indicate that saltcedar infests 3.7 million acres in 17 western states. Most of the U.S. saltcedar populations are actually hybrids of at least three *Tamarix* species. It tends to invade riparian areas, but can also thrive in agricultural areas, desert washes, disturbed areas, urban landscapes, and other areas where water is available for extended periods. Saltcedar often forms pure stands having up to 4,000 stems per acre, effectively choking out all competing vegetation and forming a monoculture. When cut down, saltcedar responds by sending up new shoots from the base of the trunk.

Cattle occasionally browse (eat) saltcedar, but prefer other species when present. Beaver and porcupine also prefer native willows and cottonwoods to saltcedar for habitat and forage. Humans are not directly impacted by saltcedar, but it is thought to consume large quantities of water and lower water tables in localized areas where it grows in pure stands. Recent research indicates that saltcedar can remove measurable quantities of water from the soil significantly decreasing flow of adjacent rivers and streams. Subsequent research has shown they can grow and survive with less water than early research had projected.

In Arizona, where saltcedars have displaced native willows, we have an interesting conflict between saltcedar and an endangered bird, the southwestern willow flycatcher (SWF). Since the willow/cottonwood vegetation has been reduced by saltcedar, SWFs have taken up residence in the saltcedar thickets. In areas that have been designated as critical habitat, saltcedar control projects become more difficult to implement because the SWF would not have nesting cover following saltcedar removal and would therefore be negatively impacted.

Saltcedar is often controlled by cutting the stems and applying herbicide to the cut surface. Root plowing and aerial herbicide application are also used. Several large saltcedar removal projects have been relatively successful, but have costs from \$200 to \$2,000 per acre. Successful projects must also include provisions for revegetation and rehabilitation.

Saltcedar researchers have identified biological control agents that may prove to be effective in long-term population control. One is a leaf beetle collected from saltcedar's native range (Eurasia and Africa) which feeds on foliage, impacting saltcedar across its native range. These leaf beetles have been released in seven western states with varying results. It will take all the currently available tools and more to effectively reduce populations of saltcedar in the west. You can do your part by not planting it and removing any that exist on your property.

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