Weed Notes: *Tamarix aphylla*

Barry Meyers-Rice
The Nature Conservancy
Wildland Weeds Management and Research
http://tncweeds.ucdavis.edu
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Of the species of *Tamarix* commonly used as windbreaks or in erosion control, *T. aphylla* (Athel Tree) is the least invasive. It is widely used in the southwest USA, and does not appear to be establishing itself as an aggressive weed species. However, stands of naturalized plants have been noticed within this range (for example near Needles, CA or Lake Havasu City, AZ). These specimens do not appear to have been planted. Reproduction is apparently vegetative only.

Its history in central Australia, along the Finke River, is very different. It was planted by settlers as a shade tree, and it appeared benign for several decades. But its behavior changed during the 1974 rainy season. After the floods the plant invaded hundreds of kilometers of riparian habitat. It is unclear why such an explosion of growth occurred. It may be the rains induced a vast discharge of water-borne seed. Perhaps the scouring flood-waters removed stretches of native *Eucalyptus*, and the *Tamarix* pioneered the newly opened habitat. A nearby system of salt pans from a paleoriver system may have contributed to the invasion by releasing salt into the river—increased salinity was measured at one of the most heavily invaded sites. The salt may have helped kill the native plants so the halophytic *Tamarix* could invade.

It is not known why *Tamarix aphylla* has such different profiles in the US and Australia. It might be the plants represent two different gene pools, and the Australian plants are simply more invasive. On the other hand, it may be that the US plants are latently invasive and need certain events in order to promote a massive bloom (which may result in more aggressive progeny). The Hawaiian plants have been in place for a few decades without invasive behavior. The Australian plants were similarly benign for several decades before the 1974 floods.

*Tamarix aphylla* exudes salts from its leaves which would presumably degrade the soil. *Tamarix* stands support far fewer arthropod vertebrate species than do native plants.


