

Kennedy, T.A., S.E. Hobbie, R.M. Newman. August 8, 2001. "The impacts of a riparian invader, saltcedar (*Tamarix ramosissima*), on a stream food web." Ecological Society of America, Annual Meeting, Madison, Wisconsin.

ABSTRACT- Although biological invasions are increasingly recognized as an important aspect of global change, the impacts of specific invaders are often poorly understood, and the interactive effects of multiple invaders in a system have not been studied. By experimental manipulation of salt cedar (*Tamarix ramosissima*) density along a desert stream (Jackrabbit Spring, Nevada), we documented changes in organic-matter dynamics and concomitant changes in aquatic communities due to invasion by exotic salt cedar. Dense stands of salt cedar along Jackrabbit Spring reduce autochthonous production by 56-67% and emergent macrophyte biomass by 71-95%, and increase allochthonous litter inputs 1100-4300%. Salt cedar reaches are dominated by introduced mosquitofish (*Gambusia affinis*) and crayfish (*Procambarus clarkii*) and support significantly fewer endangered speckled dace (*Rhinichthys osculus nevadensis*) and pupfish (*Cyprinodon nevadensis mionectes*) than native riparian vegetation or salt cedar removal reaches. This research demonstrates that a riparian invader, salt cedar, can alter in-stream dynamics and is having a negative impact on the endangered fish of Ash Meadows. However, it is unclear whether this is due solely to the direct effects of salt cedar on resources or if introduced crayfish and mosquitofish are exacerbating the impacts of salt cedar.