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Short communication

Distribution of salt cedar (*Tamarix* spp. L) along an unregulated river in South-western New Mexico, USA

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Abstract

The primary goal of this study was to assess the presence of non-native *Tamarix* along an unregulated river in south-western New Mexico. Results from this study confirm the presence of these species; *Tamarix* were common along all reaches of the surveyed river.

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Keywords: Gila River; New Mexico; Riparian; *Tamarix*; Unregulated

1. Introduction

Across North America, river regulation has been cited as the primary factor driving the invasion of riparian floodplains by non-native taxa. However, relatively little research has examined the distribution of *Tamarix* (common name: tamarisk or salt cedar, Family Tamaricaceae) on free-flowing rivers. To develop management strategies for these species, mapping of current distribution patterns is paramount (Sakai et al., 2001). The primary goal of this research was to assess the current distribution of *Tamarix* along the free-flowing upper reaches of the Gila River in south-western New Mexico. The River's flow is controlled primarily by climate,

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floodplain geomorphology and basin topography, but is not without human alteration; until recently, grazing by domestic livestock was prominent throughout the upper watershed.

2. Methods

The unregulated portion of the Gila River and its headwaters lie within the wilderness boundary of the 1.3-million hectare Gila National Forest in Grant and Catron counties, NM, USA (approximately 33°30'S, 108°00'E). Elevations throughout the study area range from 1400 to 2100 m. The climate is semi-arid, with mean annual precipitation ranging from 200 to 320 mm and annual temperatures ranging from −3 to 28 °C (Western Regional Climate Center, 2004).

Excluding private property, data were collected in the summers of 2002 and 2003 along the entire length of the Gila River (Fig. 1). On the Main Stem and Middle Fork, UTM coordinates were collected to record the location only of conspicuous *Tamarix* individuals and populations. On the East Fork, surveys were more thorough; all individual *Tamarix* were recorded from the East Fork's confluence with the Main Stem to the National Forest Boundary below Taylor and Beaver

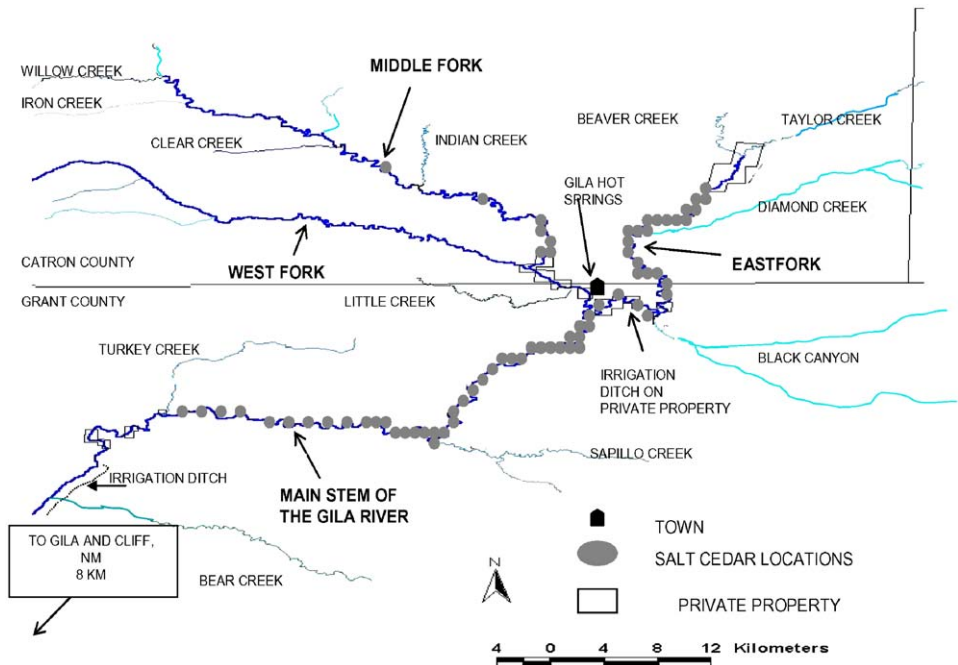


Fig. 1. Distribution of salt cedar (*Tamarix* sp.) along the Gila River in Grant and Catron counties, New Mexico. Points represent approximate locations of UTM coordinates collected during this study. Elevations range from about 1450 to 2100 m. UTM coordinates are available from the author.

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