Effects of Saltcedar on abundance and habitat utilization on the Side-Blotched lizard (*Uta stansburiana*)

Danny P. Nielsen[*1] and Heather Bateman[2]

[*]dannynielsen0@gmail.com
[1]Arizona State University Polytechnic, 5718 S Amulet Dr. Mesa, AZ, 85212
[2]Arizona State University Polytechnic, 6073 S Backus Mall, Mesa, AZ 85212

Non-native Saltcedar (*Tamarix* spp.) has invaded many riparian habitats and is the third most abundant tree in Southwestern riparian areas. Knowledge of the impacts of exotic species on native fauna is important for land managers. Lizards can be a tool for studying changes in habitat because they respond to structural features in the environment. We evaluated lizard abundance and microhabitat selection between 2009 and 2010, along the Virgin River in Nevada/Arizona. We observed Common Side-blotched lizards (*Uta stansburiana*) in two different habitat types along the riparian corridor. Habitat types were monotypic saltcedar stands or mixed stands of cottonwood (*Populus fremontii*), willow (*Salix* spp.), mesquite (*Prosopis* spp.) and saltcedar. We predicted that abundances of Side-blotched lizards would vary between habitats. Also, we predicted that the presence of saltcedar will affect how Side-blotched lizards utilize available habitat. Lizard abundance was determined from a concurrent mark-recapture study using pitfall and funnel trap arrays. We evaluated habitat utilization by sampling each site using visual encounter surveys (VES) for Side-blotched lizards and recording seven microhabitat variables where lizards were found and at matched random points. During the period of study, we captured 256 individual Side-blotched lizards. Of these, 31 were adults (19 from mixed sites and 12 from saltcedar sites) and 225 were hatchlings (132 from mixed sites and 93 from saltcedar sites). We found that lizards selected available habitat that was more open in terms of vegetation cover and overstory regardless of habitat type. These results indicate that Side-blotched lizards selected certain habitat criteria in both native and non-native vegetation. This will aid in understanding how native fauna respond to structural changes associated with exotic vegetation.