The degree of polymorphism in \textit{Puccinia punctiformis} virulence and \textit{Cirsium arvense} resistance: implications for biological control

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\textit{Cirsium arvense} (California thistle) is one of the worst weeds in New Zealand. The host-specific rust fungus, \textit{Puccinia punctiformis}, is known to have detrimental effects on this weed; however, its usefulness for biological control in New Zealand has not been fully explored. A collection of \textit{C. arvense} ecotypes and rust pathogen isolates from across New Zealand were used in a reciprocal interactions experiment in order to elucidate different host/pathotype infection combinations. Here, we report on the degree of polymorphism in this host/pathogen system and the possible implications for biological control.

Field exploration for saltcedar natural enemies in Egypt

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\textit{Genus Tamarix}, saltcedar, consists of 90 different species, and 8 of them have been introduced into the United States in the 1800s. Among them, only two species are considered a real threat to the natural ecosystems of the southwestern USA: \textit{Tamarix parviflora} and \textit{Tamarix ramosissima}. These weeds can be found primarily in Colorado, Utah, Kansas, Texas, New Mexico, Wyoming and Arizona (Brock, 1994; Di Tomaso, 1998). Once established, saltcedar can out-compete stressed native plants and cover large areas of formerly native habitat, resulting in a less productive and less diverse environment. Very promising results were achieved in the biological control domain by the release of the gregarious leaf beetle \textit{Diorhabda elongata}. This work aimed to survey the entomofauna associated to \textit{Tamarix} species in Egypt.