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HIGH SOCIABILITY AS A KEY TRAIT FOR INVASION SUCCESS? A CASE STUDY IN THE MEXICAN CENTRAL PLATEAU

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ABSTRACT

From all the species that arrive to a novel environment, very few manage to form a viable population. The guppy, a very successful invader, is a highly social species that performs some of its vital tasks (*e.g.*, foraging, avoiding predators) in groups. It is known that guppies are willing to associate with native species, but it is still uncertain if native species associate with them as well, thus facilitating successful establishment. We tested the hypothesis that Mexican topminnows (*Skiffia bilineata* and *Poeciliopsis infans*), like guppies, associate with heterospecific individuals; and this could help invasive guppies to avoid Allee effects by increasing the group size. Willingness of natives to interact with invaders could be one of the environmental characteristics of a place that increase its risk of invasion. We aimed to explore the social interactions of invasive guppies with native Mexican topminnows, particularly if the tendency guppies showed to associate with heterospecifics remains when they are invaders and if natives are as well willing to associate with them. We found that guppies readily associate with native heterospecifics. At the same time, native heterospecifics were also inclined to associate with the invasive guppies. Our results suggest that guppies might have a greater chance of successfully invading an area when arriving in environments where native species cooperate with them.