



Western Mosquitofish (*Gambusia affinis*)

Mosquitofish is found in temperate and tropical Atlantic drainages of the United States and Mexico south to approximately the 20th parallel. It has been introduced widely in southwestern United States as well as other temperate and tropical waters of the world primarily as a mosquito control agent (BISON 2000). This species was first collected in Arizona in 1926.

This fish is remarkably adaptable and succeeds in almost any conceivable habitat, ranging from clear, cool springs through turbid, hot, stock tanks. It does not do well in extremely cold environments.

The predatory activities of mosquitofish are not restricted totally to larval insects. Its own young are also prime food, sometimes only a few seconds after being born, and it also feeds on the young of other fish species (Minckley 1973).

Mosquitofish (*Gambusia spp.*) are known to dominate some fish communities in eastern Australia often resulting in either a reduction in native fish numbers or the total elimination of the native species. *Gambusia* threaten native fish species by predation on their eggs and fry and by competing for food and space. They are also known for their aggressive behavior (e.g. nipping fins of other fish species which may lead to fungal infections and death (Queensland Department of Primary Industries and Fisheries 2005). Mosquitofish has been documented as leading to the decline of the least chub in Utah. Researchers discovered mosquitofish aggressively preying on the least chub, sometimes swallowing the adolescents whole (Daily Herald 2004). Interactions with introduced mosquitofish are responsible for the reduction in Sonoran topminnow through much of their native range in the Gila River drainage of southern Arizona. A series of laboratory and field experiments indicated that predation of juvenile topminnows by mosquitofish is a major factor in the species' decline (Meffe 1985).

Mosquitofish have also been documented as preying heavily on California newts and Pacific tree frog tadpoles in California (Goodsell and Kats 1999). What role this widespread and voracious predator has on the demise of the endangered Chiricahua leopard frog in Arizona has yet to be determined.

Work Cited

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