

Some factors to consider before stocking mosquitofish:

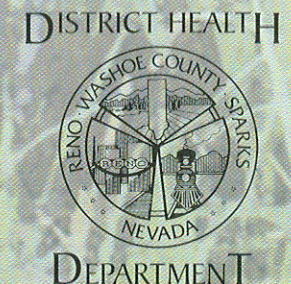
- Is the location a permanent water source?
- Does it produce mosquitoes?
- Is the water quality adequate? Depth? Clarity? Algal food source? Plant cover?
- Are there mosquitofish predators present?
- Are there ornamental or sport fish species present?
- Are there toxins being emitted into the water that might endanger the fish?

The District Health Department Vector-Borne Diseases Program utilizes mosquitofish as an effective and safe biologic control agent for mosquitoes in Washoe County. Our staff also provides consultation on mosquitofish use in ornamental ponds and small lakes. Interested residents may request fish for a private pond by calling 785-4599. This is a free service to County residents.

Washoe County
District Health Department
**Vector-Borne Diseases
Program**

1001 EAST NINTH STREET
P.O. BOX 11130, RENO, NV 89520
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About Mosquitofish...



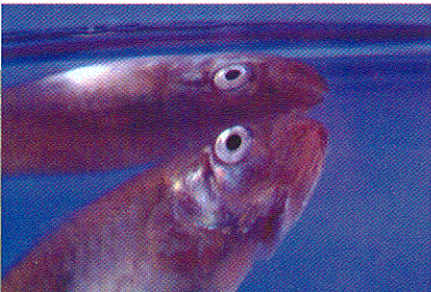
Vector-Borne Diseases Program

Mosquitofish, scientifically known as *Gambusia affinis*, are a major predator of mosquito larvae in many diverse aquatic habitats around the world. The fish's ability to consume large quantities of mosquito larvae makes it an effective biological tool toward mosquito population control. A rapid reproductive rate and high adaptability to harsh climates support its use by public health agencies to control mosquitoes throughout the United States.

Characteristics

Mosquitofish tend to be a comparatively small species with full-grown adults ranging in length from 1.5 inches up to 2.5 inches. Adult females can reproduce anywhere from 10-300 fry once every 18 to 35 days.

While the color of mosquitofish is usually olive or muted silver, this characteristic tends to vary with the habitat. In just moments the fish can adjust their pigmentation to more closely match the coloration of a new background. Mosquitofish swim in schools, feeding near the surface of ponds or in slow moving streams. They are opportunistic feeders and forage on a wide range of aquatic larvae and algae.



Habitat Requirements

While mosquitofish are considered to be a robust species, attention to certain environmental factors is important to insure their rapid proliferation.

Water depth is an important consideration particularly in climates with subfreezing winter temperatures. Mosquitofish can usually survive the winter in waters that are 3 to 4 feet deep. An ideal water source should have a shallow shoal area preferably with some cover for young fish to hide.

Aquatic temperatures can influence fish productivity. While mosquito fish exhibit a high tolerance for a wide range of water temperatures, cooler temperatures may inhibit their maximum reproductive potential by slowing their metabolic and feeding rates. Although fish can exist in temperatures ranging from 30°F to 104°F, the preferred temperatures range from 70°F to 90°F.

Water quality and plant growth are critical to the overall success of the fish. Mosquitofish can tolerate moderately turbid waters. Unicellular algae, such as phytoplankton and zooplankton that give water a greenish look, optimize fish productivity by providing an alternative food source if mosquito larvae are not available. Adult mosquitofish will become cannibalistic and make a quick meal out of young offspring if alternative food is not available.

Larger aquatic plants such as floating filamentous algae and tiny green floating duckweed provide good cover in small amounts to protect the fish from predation by raccoons, opossums, cats, and various fish-eating birds. Excessive growth of either of these plants, however, tends to limit effective consumption of mosquito larvae and can be detrimental to fish productivity.

Mosquitofish do not always coexist well with other fish species. Blue gill, for example, are mosquitofish predators and can easily destroy a whole population. Mosquitofish may outcompete other desirable fish species such as goldfish and trout. They have also been known to chew on the fins of koi. Mosquitofish are not recommended in waters where any of these species are planned or established.

By keeping a few environmental factors in mind to maintain an optimal habitat, mosquitofish can be used effectively to maintain a healthy, non-mosquito producing ornamental pond or wetland.

