

## MOSQUITO FISH

Mosquito fish (*Gambusia affinis*) are small freshwater fish that eat mosquito larvae. Controlling mosquito larvae is important because it limits the number of adult mosquitoes in the area. Adult female mosquitoes bite humans and animals and can spread diseases such as West Nile virus and many types of encephalitis. Mosquito fish reproduce easily and take little care, which makes them an effective and natural method to control mosquito larvae breeding.



Female mosquito fish. Length: 2.5 inches.



Male mosquito fish. Length: 1.5 inches.

**BOTH THE FEMALE AND MALE MOSQUITO FISH HAVE A PALE GRAY BODY, FADING TO MUDDY WHITE ON THE BELLY.**

### Using Mosquito Fish

Mosquito fish are used in standing water sources such as unused or unmaintained swimming pools, private ponds, birdbaths, fountains, and water troughs. Mosquito fish should never be placed in any natural habitat such as lakes, streams, rivers, or creeks. Since mosquito fish are an invasive species (greedy eaters), placing them into natural waterways or sensitive habitats may destroy natural species and disrupt the ecological balance.

### Introducing Mosquito Fish to Their New Home

When you bring your fish home, let them get used to their new home. Keep the fish in their container and place it directly into the water source for 20 minutes or until the water source and the container's water are about the same temperature, then release the fish. Mosquito fish can tolerate water temperatures at 33-104°F, but prefer temperatures around 77-86°F. They like water with a pH between 6.5 and 8.0. Keep chlorine, garden insect sprays, and yard chemicals out of their water.

### Living Conditions

During the winter, the fish hibernate in the lower water depths, and reappear in late spring when the water temperature is warmer. The fish prefer sunlit areas of the pond and do not thrive in a heavily shaded pond. Mosquito fish are compatible with most ornamental pond fish. They live best with fish their own size, as larger fish may eat the mosquito fish. If the mosquito fish are living with larger fish, provide large rocks and vegetation for shelter. This also protects them from other predators such as raccoons, opossums, and egrets.



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### Feeding

Mosquito fish are omnivorous (feed on both plant and animal origin). They eat algae and small invertebrates but have a big appetite for mosquitoes. A large female mosquito fish can consume hundreds of larvae per day! During warm months, mosquito fish usually do not need to be fed. During the winter when larvae may be scarce or if the water source does not have any plant life, feed the fish tropical fish flakes, or dry dog or cat food. Feed them as much as they can eat in 5 minutes 2 times a day. Overfed fish may not eat mosquito larvae and too much food may cause bacterial bloom, which is harmful to the fish.



### Algae

Small amounts of algae are a good food source for the mosquito fish, but if it gets too thick, the fish may not be able to get to the mosquito larvae. Some algaecides are poisonous to fish, so they should be used only if recommended by a knowledgeable aquaculturist. Materials and instructions may be found in local tropical fish shops and garden supply centers.



### Leaves

Certain leaves, like pine, oak, and eucalyptus contain chemicals that are harmful to mosquito fish. Buildup of these leaves make the fish too sick to eat mosquito larvae. Make sure to remove these leaves from your water source.

### How Many Mosquito Fish Do I Need?

- Small sources, such as fountains or troughs: 2-3 mosquito fish
- Ponds with surface area less than 200 square feet: 3-5 mosquito fish
- Large sources over 200 square feet: 1 mosquito fish for every 20 square feet

### How to Get FREE Mosquito Fish

The County of San Bernardino Department of Public Health Division of Environmental Health Services' Mosquito and Vector Control Program (MVCP) provides **FREE** mosquito fish to all County residents within MVCP's jurisdiction. These mosquito fish are to be used on private property to reduce the potential for mosquito breeding. One request may be made per year for each household. A valid form of California identification, a utility bill or other official document indicating residence is required to verify jurisdictional residence.

To receive mosquito fish, call or text Environmental Health Services at 1-800-442-2283 to schedule an appointment to stop by our office and complete a Mosquito Fish Request form.