A TRIP TO THE CREEKS OF THE SAN RAMON VALLEY, CALIFORNIA

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It was during high school that I developed what my friends and family might call an overdeveloped interest in fish. At first, it was tropicals, tanks and tanks of them, and to some extent my interests still lie with this group today. Nevertheless, I was soon looking for something else. Working in a pet shop as a "fish guy" during high school had exposed me to most of the tropical fish available to hobbyists and "fish people." Thus, I began to check out the aquatic habitats in my area to see what the locals were like (the local fish, that is). Thus began my first collecting adventure during the winter of 1988.

I struck out on a cold, clear day with my friends Mike and Scott to explore the creek that runs through our town in the San Ramon Valley. The valley is located at the base of Mt. Diablo in Northern California among the hills that separate the San Francisco Bay area from California's Central Valley. Once filled with walnut orchards and cattle ranches, it is now a rapidly growing suburban area. Many sections of the creek have been converted into concrete-lined drainage canals, but some parts of the original creek bed and surrounding riparian vegetation remain intact. During the dry summer months, the creek is reduced to a few warm, stagnant pools that occasionally get an influx of oil- and detergent-laden water from street drainage. During the winter, however, when (and if) the rains come, the creeks fill and begin to flow.

We started on a part of the creek shaded by trees and low shrubs. As we sloshed up the channel, hundreds of guppy-like fish were flushed from the bank vegetation. We used an old pool net to catch some of them and put them in a bucket. They turned out to be none other than the infamous Mosquitofish (*Gambusia affinis*), the prolific, non-native, mosquito-larvae-eating, native-food-source-consuming fish that we have all come to know and love.

After catching some fish, we would put them in the bucket and look at each one, to see if we could find any other kind of fish. If nothing new showed itself, we dumped them back in the creek. As we made our way, we noticed small animals on the creek bed that would swim a short distance and then settle down again. These turned out to be crayfish, and some were quite large.

The stream bed was devoid of any aquatic vegetation, perhaps in part because of the eating habits of the crayfish, which, when put in a tank, would eat any plants present.

Finally, after about a half hour of wading through major schools of Mosquitofish, we "discovered" a new fish in a net

that had been swept through the vegetation that draped down from the banks into the creek. After consulting our trusty Audubon Society field guide, we figured this fish could only be the Threespine Stickleback, known to science as *Gasterosteus aculeatus*. At first, we found only one stickleback at about 2" long in among the vegetation, but as we moved farther upstream, we found a few deep, clear ponds that had small schools of sticklebacks, all about the same size, 2". After wading through and walking the banks of several of these connected ponds, we found that the sticklebacks seemed to hang individually in the bank vegetation, and were only found in open water when in a school. The individuals in the bank vegetation could have been males staking out territory for a nest, while the schooling groups might have been females, or young males unable to compete for a territory on the banks of the creek.

In my readings on this fish, I found that *G. aculeatus* is typically a shore fish that commonly lives in estuaries and enters freshwater streams to spawn. But it seems to me that it would be practically impossible for this small fish to make it as far inland as we found them; there are many man-made waterfalls, and other obstacles that would keep them from getting too far from the shores of the San Francisco Bay Delta into which these creeks drain. Therefore, the ancestors of the fish that inhabit the upper reaches of the creek must have migrated up this stream at some time before these various
man-made obstructions existed and then decided to call the creek their home.

In any case, to make a short story even shorter, after our first foray into the creeks of the valley, I decided that checking out the local habitats in person can be more exciting than looking at pictures and reading about tropical faraway places in a book. Besides, studying a fish in its wild habitat is a bit more challenging than a trip to the pet store.

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