FUNDULUS CONFLUENTUS

by Bill Ballard, Fairhope, Alabama

Anyone looking for a hardy brackish killifish with a highly variable color range will be very happy with Fundulus confluentus.

This fish reaches about 3" in length and is found in brackish tidal marshes and muddy tidepools from coastal Virginia south to Florida, then west to southern Texas.

Males come in two very different color phases. Due to this, some ichthyologists classify one of the phases (gray) as F. pulvereus. Both the Atlas of North American Freshwater Fishes and the Audubon Society Field Guide to North American Fishes, Whales & Dolphins mention that some ichthyologists consider F. pulvereus to be conspecific with F. confluentus. I agree. In my area, both color phases (gray and orange) are about equally common and can be found in the same immediate vicinity. Females show no color variations. They are brown with a somewhat mottled appearance on the back, and rather faint bars (sometimes absent altogether) on the sides. There is a black spot on the rear of the dorsal fin. In gray-phase males, the body is gray to blackish (depending on substrate color) with distinct black vertical bars on a light background. The back half of the body is covered with tiny white spots which extend onto the dorsal, anal, and caudal fins. These three fins are gray with light cream-colored borders. When mating, the body becomes very dark and the fin borders are bright yellow.

In the orange phase, the body is orange-brown and the dorsal, anal, and caudal fins are orange. The vertical fins and white dots are arranged the same way as on the gray phase. In mating, these fins become very orange with very deep orange to red-orange borders.

In my collecting area (Pensacola and Perdido Bays in N.W. Fla. and S. Ala.), these fish are limited to very specific habitats. These are the very muddiest or swampiest edges of bayous and certain very muddy, weedy tide pools. The fish are normally found in very shallow (less than 3") water, hiding among reeds or debris. Due to the nature of this habitat, they are seldom seen by casual observers, and hardly ever captured by anyone not deliberately looking for them. In nature, they are primarily meat-eaters, a fact that can be used to advantage in catching them. I often throw pieces of crab or shrimp meat into likely areas,

then a few minutes later scoop up the fish with a dip net. This nearly always nets a number of small fish and normally a few confluentus will be in the catch. Another fish often caught along with them is Adinia xenica.

In an aquarium, these fish do well, and I often keep them along with other brackish killies. Although many specimens initially refuse flake food, most will eventually come to like it. Any form of fish, crab, or shrimp will be readily eaten. They often like soft-bodied insects (moths seem to be their favorite).

To promote the best color, I suggest a dark background and dark-colored bottom material. The fish will rapidly darken or lighten to blend into their surroundings.

Their water should definitely contain some salt. Though sometimes found in nearly fresh water in nature, they are never as attractive there as in areas with higher salinity. Mixing enough marine mix with aged (or pond) fresh water to give a noticeably salty taste should provide good water for them. Aquarists in coastal areas can use water from any brackish estuary.

I feel that F. confluentus is a good candidate for selective breeding. Besides the two color phases already mentioned, fish of one phase can sometimes show a slight touch of the other phase. An example is a gray male with a tint of orange in the color of the dorsal-fin border. Also, orange-phase males in some areas are a golden orange rather than a brownish orange. I do not have the tanks or room to engage in extensive experimental confluentus-breeding, but would like to hear from anyone who would like to give it a try.