

## THE BEGINNER'S BUCKET

## Summer Satefins

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**L**ike the black-eyed susans that bloom in the area's yards and gardens, many fish species in the Washington, D.C. area burst into their spring colors as they get ready for spawning.

It's become a seasonal ritual in my NANFA region to collect one of the most seasonally beautiful fish in the area, the satefin shiner (*Cyprinella analostana*, Fig. 1). This year, new member Wally Bilingham, visiting from Pittsburgh, and Virginia member Tom Moran and I collected these species from a creek in Prince George's County, Maryland.

Like other members of their genus, during the breeding season satefin shiner males have white, glossy edges on their fins. This, together with their overall, bright silvery coloration, makes them a striking aquarium inhabitant. During breeding season, males also develop white breeding tubercles on their heads and bodies. Satefins and other *Cyprinella* species appear to have diamond-shaped scales, but the appearance is due to crosshatchings on the scales that create a diamond pattern.

The satefin shiner occurs throughout the Atlantic Slope, from the Hudson River drainage southward to the Peedee River drainage in North Carolina. The species is also found in the Lake Ontario drainage of New York.

*Cyprinella* are "fractional spawners," laying only a fraction of their eggs during each spawning episode. This extends their breeding season from spring through summer. Fractional spawning is thought to increase survival among the larvae by reducing the number of individuals that compete for the available food supply at any one time.

*Cyprinella* species also improve the survival of their offspring by laying their eggs in crevices, such as the cracks between rocks and boulders, or in the loose bark on fallen trees. Crevice spawning protects the eggs from predation, from being swept away by the currents, and from smothering in silty bottoms. In addition to cutting down on competition



Fig. 1.

Satefin shiner, *Cyprinella analostana*, male. Courtesy: The Virtual Aquarium of Virginia Tech ([www.cnr.vt.edu/efish](http://www.cnr.vt.edu/efish)) and Virginia Department of Game and Inland Fisheries.

between offspring, fractional spawning allows satefins to make better use of the available spawning sites.

With their glossy fins, satefin shiners make beautiful aquarium residents, often retaining their spawning colors in captivity, especially if they're kept at around 70°F. They're active, lively swimmers, always darting around the aquarium. Males may be territorial and attack their tankmates, however. One strategy is to keep several satefins together, so that the fish disburse their aggression on each other rather than on other residents of the aquarium.

In the wild, satefins feed on aquatic insects, insect larvae, small fishes, and occasional plant matter. In the aquarium, they'll accept virtually all types of prepared foods.

One strategy for spawning them is to provide crevices by stacking terra cotta tiles one on top of the other, separating the tiles with a few silicon beads.

Aquarist Bob Goldstein told me he's used another spawning medium for another *Cyprinella* species, the fiery-black shiner (*C. pyrrhomelas*). Goldstein places the filter cartridge from a "biowheel" filter in the spawning tank. After the fish lay their eggs between the corrugations, remove the filter cartridge to another aquarium, where the eggs can hatch in safety. 🐟