

# THE SATINFIN SHINER

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Familiar as most of us are with the darting little fish in streams and brooks, we seldom go further than calling them minnows or minnies or chubs. One of those silvery little fishes is a rather unique type found only in certain areas of New Jersey and known by the rather pleasant name of satinfin shiner.

Minnows or shiners comprise the largest group of fishes in the United States and include that dandy import the carp. More intriguing are some of the common minnows seldom noticed by outdoors people. It's rather easy for most to spot a white-tailed deer (except when you are deliberately looking for them) or a mockingbird or even a black snake, but when was the last time you even cared if one minnie wasn't the same as the next?

Inhabiting New Jersey are at least 18 different minnows with such descriptive names as cutlips minnow, stoneroller, bridle shiner, and fallfish. And what makes minnows unique? In most fish books you'll generally find observations based on close-up work with dead minnows which will tell you that although related to suckers, minnows have a different set-up of mouth parts and that most minnows lack spines in the dorsal fin.

Getting into this a bit more, literally, real minnows don't have teeth in their mouths. Where else then, would they have them, you ask? Dig this, smarty, they have teeth in their throat! Called pharyngeal teeth, the rows and number of these teeth can be a diagnostic characteristic used to identify various minnows. Pharyngeal teeth may be in one or two rows and usually don't consist of more than five teeth in a row.

Minnows also have a complete series of multiple ribs from their heads to their tail tips. This arrangement, as well as their coarse, muddy-tasting flesh and their small size generally leave them out of the food-fish category although herons, egrets, king-fishers, water snakes, raccoons, and, most of all, predatory fishes find them edible. Not all small fishes are minnows, remember, so even if you're not out to eat them, you might like to be aware of their individualities, (except if you're a heron or egret, in which case you wouldn't be reading this). Anyway.....

Getting back to the satinfin shiner, the object of this discourse, we find that a fellow named Girard classified the satinfin scientifically as Notropis analostanus, and referred to it as one of the spot-fin minnows. Now we have another bit of info to tuck away for later use - there are minnows with a spot or spots on their dorsal fin; though the spots are not always easily visible.

The satinfin is a fresh-water minnow and seems to prefer New Jersey's larger streams and rivers, and primarily those flowing into the Delaware River from Trenton north. However, being particular in its habitat, the satinfin thrives in clean streams in flat, fertile, agricultural areas. They seem to avoid small headwater streams. Found in the Pequest drainage of north-western New Jersey, satinfins also turn up in the Delaware-Raritan Canal, the Millstone River, and in several streams in Hunterdon, Somerset, and Mercer counties.

There are other minnows of the spotfin clan, such as the spotfin minnow, which sounds redundant, but historically the satinfin was called the eastern satinfin and the spotfin was called the western satinfin, although we are still talking about minnows in the eastern United States. Amen.

The range of our satinfin is listed as coastal drainages from the St. Lawrence to North Carolina. The similar spotfin isn't found in New Jersey at all. However, across the Delaware in Pennsylvania, the satinfin and spotfin hybridize!

And just how do we begat more satinfins? They're egg layers and usually spawn from May to mid-June in daylight hours. They may even spawn twice during the summer if water temperature and other factors are favorable. No nest is prepared for the eggs, such as bass or bluegills might scrape out of a gravelly stream bed. Rather, the eggs are adhesive and when broadcast near submerged logs, stumps, or rocks, stick fast to them. Neither parent fish really cares for the eggs or young in any way except that the male defends the general territory in which the eggs are laid. Normally steel-blue, the males take on a yellowish color during breeding season.

The eggs hatch when they are about 5mm in size, at about 8-11 days. The young are smooth-skinned upon hatching and scales don't begin to appear till the young are 15-16mm long (25.4mm=1 inch). The first scales grow on the caudal peduncle, the rear of the fish near the tail. Tiny aquatic insects make up the little minnow's diet.

In the world of research and scientific investigations, we find that a fellow by the name of U. B. Stone actually did his doctoral thesis on "Studies on the biology of the satinfin shiners" while at Cornell University. New Jersey Division of Fish, Game, and Shell Fisheries fisheries biologists have also been involved in piscatorial investigations and have found the satinfin in 17 New Jersey streams.

Now go on your way with a new bit of factual fish findings in your unique Garden State and be aware that the next minnow you see may just be our satinfin!