

Stream Monitoring Data  
530 North State Road  
Briarcliff Manor, NY

Date: October 2, 2018

GPS Address: Latitude: 41.165 120 Longitude:-73.821750

Investigated by: Jay Fain, Victoria Landau

Weather: Cloudy, Air Temperature 67 F.

Watershed: Pocantico River Basin

Strahler Stream Order: 5

Instantaneous flow Rate: <0.5 CFS (Determined by Cross-Section Discharge Method)

Stream Type: Defined Open Channel, Perennial, low flow

Station #1 (Opening at North State Road)

Substrate: Rip-rap channel with sand gravel

Channel Characteristics: Defined, linear, vegetated.

Physical Characteristics:

Temperature: 66 degrees F.

Dissolved Oxygen: 7.47 mg/l

pH: 6.83

Conductivity: 5.6 mv

Biological Characteristics:

Black nosed Dace (*Rhinichthys altralulus*) (abundant)

Tadpoles (*Rana* spp.)

## Station #2 (Culvert discharge at rear of site)

Substrate: Sandy gravel

Channel Characteristics: Defined, linear, devoid of vegetation.

Physical Characteristics:

Temperature: 66 degrees F.

Dissolved Oxygen: 7.39 mg/l

pH: 7.15

Conductivity: 4.5 mv

Biological Characteristics:

Black nosed Dace (*Rhinichthys altralulus*) (abundant)

Creek Chub (*Semotilus atromaculatus*) (2 specimens)

## Station #3 (Entrance to culvert leaving site)

Substrate: Sandy, gravel

Channel Characteristics: Well Defined, linear, devoid of vegetated.

Physical Characteristics:

Temperature: 66 degrees F.

Dissolved Oxygen: 7.45mg/l

pH: 7.23

Conductivity: 10 mv

Biological Characteristics:

Black nosed Dace (*Rhinichthys altralulus*) (abundant)

## Methods:

Dissolved Oxygen: YSI Model 55 meter

pH, conductivity Hanna Instruments HI 9023 meter

Flow: Cross-section Area method

Length: 9 feet, Time: 3.3 sec. Velocity = 2.7 Ft/sec

X-section area: mean width: 15 inches, mean depth: 2 inches = 0.21 sq ft.

Roughness coefficient: 0.7

One of the most widespread fish in New York State waters across the State. They are one of the most popular species raised by people for the bait industry for years.

Although generally a lake species, golden shiners live in water that is quiet, weedy, clean, and somewhat shallow instead of deep and compressed. The lateral line runs along their bodies, distinguishing them from some of the other golden or brassy with red fins. Adult golden shiners are ten inches.

Golden shiners grow rapidly and reach maturity in one year. They require algae and other aquatic vegetation to survive. There is no parental care.

Aside from their use as bait, golden shiners are also used in aquaculture.

### Blacknose Dace

A small minnow-like fish in clear streams and streams with a source of oxygen.

Blacknose dace are small, slender fish with a dark spot on the snout and a dark spot on the tail and during breeding season. They are relatively short lived, blacknose dace mature in one year. With males establishing territories over grassy areas, they immediately defend the eggs from other dace.



<https://www.dec.ny.gov/animals/7040.html>

BLACKNOSE DACE- 2"

9/19/2018

Fallfish feed on insects, small fish, crayfish, and some larger fallfish fall prey to fish eating birds, such as osprey, are not normally eaten by anglers. However, smaller species are

### Creek Chub

Large minnows, creek chubs are the fastest moving water fish in the Long Island, they are found in streams and rivers.

Generally dark in color, creek chubs have a purple or blue coloration during spawning. In some cases, they have been known to appear black, that causes black chubs to be generally harmless to the fish's health.

Similar to fallfish, male creek chubs build nests in gravel. After several females have spawned in succession, the male will guard the eggs. Interestingly, female creek chubs will often float the eggs, and swim off to spawn several more times by children. While they can be eaten, these fish are not normally eaten by anglers.

### Golden Shiner

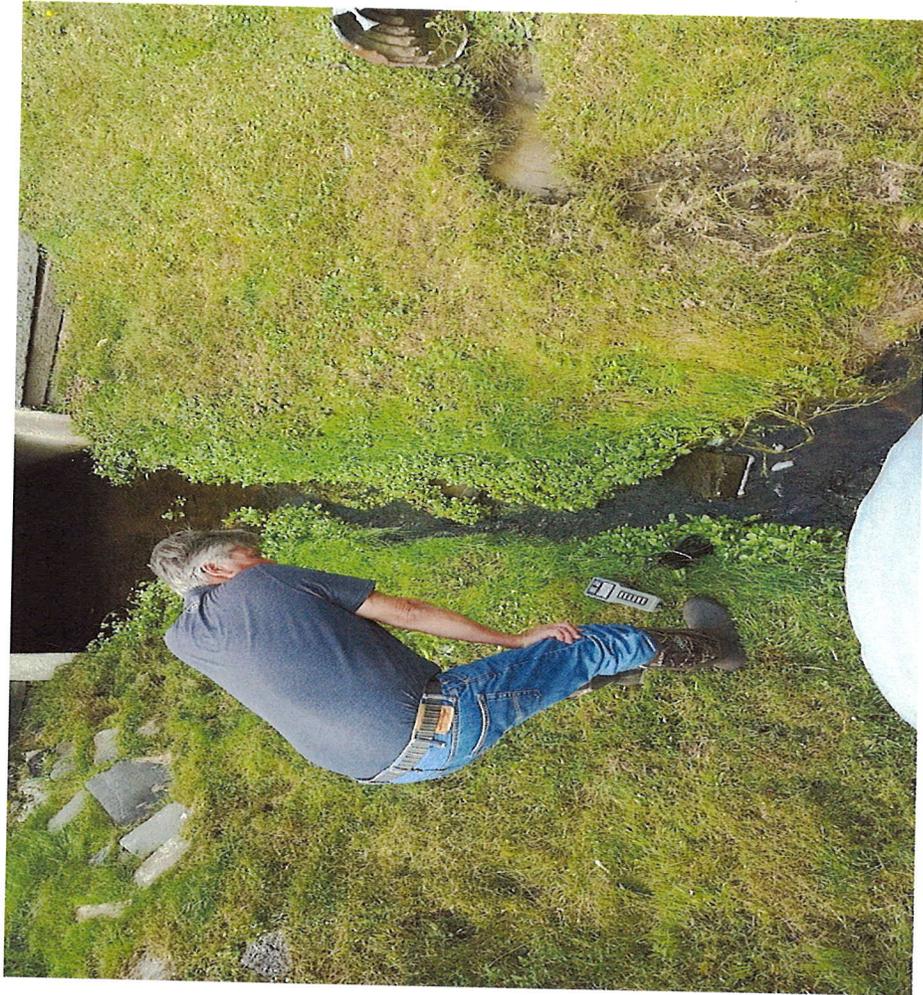
One of the most widespread fish in New York State waters across the State. They are one of the most popular species raised by people for the bait industry for years.



CREEK CHUB -2.5"



CREEK CHUB - 4 "



STATION ONE

PHOTOGRAPHS OF FISH AND STATIONS USED FOR STREAM MONITORING DATA at 530 North State Street, Ossining, NY on October 2, 2018



**STATION 2**



**STATION 3**

PHOTOGRAPHS OF STATIONS USED FOR STREAM MONITORING DATA at 530 North State Street, Ossining, NY on October 2, 2018

Fallfish feed on insects, small fish, crayfish, and some plant material. Small fallfish are eaten by other fish and larger fallfish fall prey to fish eating birds, such as ospreys. Although edible when taken from cold water, fallfish are not normally eaten by anglers. However, smaller fish are sometimes used as bait.

## Creek Chub



Large minnows, creek chubs can reach six to 12 inches in length. They live in all but the fastest moving waters of streams and rarely inhabit lakes. With the exception of Long Island, they are found in waters across the state.

Generally dark in color, creek chubs have a purple sheen on their sides. They can be distinguished from most other minnow species by a dark spot at the base of the dorsal (back) fin. Male creek chubs develop a pink coloration during spawning.

In some waters, creek chubs look like they have been sprinkled with black sand. This is because they are often heavily covered with the parasite that causes black spot disease. While the parasite may affect the fish's appearance, it is generally harmless to the fish's health and is not transmittable to humans.

Similar to fallfish, male creek chubs build nests in gravel. Females then deposit eggs and the males cover them. After several females have spawned in succession in one nest, the nests can reach several feet long. Interestingly, female creek chubs will often float belly up after spawning, as if dead. They quickly recover, however, and swim off to spawn several more times. Creek chub readily take baited hooks and are often caught by children. While they can be eaten, these fish are generally released. Anglers often use creek chubs for bait.

## Golden Shiner

One of the most widespread fish in New York State, golden shiners are found in waters across the State. They are one of the most popular bait fish and have been raised by people for the bait industry for years.



Although generally a lake species, golden shiners live just about any place the water is quiet, weedy, clean, and somewhat shallow. They do not have the "typical" minnow body shape, but are instead deep and compressed. The lateral line that runs along their sides noticeably dips down in the middle of their bodies, distinguishing them from some of their relatives. Juvenile golden shiners are silver, but adults are gold or brassy with red fins. Adult golden shiners are generally five to seven inches long, but can grow as long as ten inches.

Golden shiners grow rapidly and reach maturity at age two. They reproduce in late spring/early summer, and require algae and other aquatic vegetation to spawn. The adhesive eggs are simply scattered over vegetation. There is no parental care.

Aside from their use as bait, golden shiners are occasionally caught and eaten by fishermen.

## Blacknose Dace



A small minnow, blacknose dace rarely grow larger than three inches long. They live in clear streams where current is present and are often the only fish found at a stream's source (beginning).

Blacknose dace can be distinguished from other minnows by the numerous speckles on their dark upper bodies. The lower part of the body is cream colored with few speckles. A dark line runs from the nose to the tail and during breeding, males develop a green tint and red fins.

Relatively short lived, blacknose dace mature at age two and rarely live past age four. They are spring spawners, with males establishing territories over gravel in shallow riffles. Males perform a spawning ritual but must then immediately defend the eggs from other dace who attempt to eat them.