

FIBI010a-R4

Pequannock River

SR 23

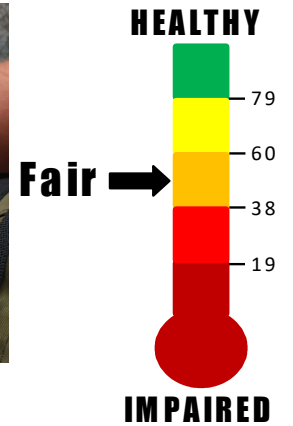
Municipality: Jefferson

County: Morris

Drainage Area (sq miles): 32

Sample Date: 7/30/2018

Site Type: Fixed



IBI Metrics

| | |
|--|--------|
| Metric 1-%Rheophilic Richness | 37.13 |
| Metric 2-%Cold Non-tolerant Coolwater | 100.00 |
| Metric 3-%Generalist Richness | 83.91 |
| Metric 4-Tolerance Index | 100.00 |
| Metric 5-%Lithophilic Richness | 52.69 |
| Metric 6-%Cyprinidae | 7.75 |
| Metric 7-%Dominant 3 Taxa | 0.00 |
| Metric 8-%Benthic Insectivore Richness | 24.08 |

Field Chemistry

| | |
|-------------------------|-------|
| Air Temp (°C) | 21.9 |
| Water Temperature (°C) | 17.36 |
| Dissolved Oxygen (mg/L) | 9.2 |
| % Saturation | 96.7 |
| pH | 7.08 |
| Conductivity (µS/cm) | 379.1 |
| Total Kjeldahl (mg/L) | 0.23 |
| Total Phosphorus (mg/L) | 0.02 |
| Nitrate/Nitrite (mg/L) | 0.79 |

Northern Fish IBI Score (0-100): 50.69

IBI Rating: Fair

High Gradient Habitat Score (0-200): 143

Habitat Rating: Suboptimal

Summary: Sampling at FIBI010a on the Pequannock River resulted in the highest collection of wild brown trout of any site in the IBI network. Despite the large brown trout population, other fish species diversity was poor and cyprinidae richness and abundance were poor resulting in low scores for Metric 7-%Dominant 3 Taxa and Metric 6-%Cyprinidae. This station was added to the middle reach of the Pequannock River and in comparison to upstream and downstream stations, FIBI010a received the lowest IBI score (50.69) of all sampling events on the mainstem.

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| Common Name | Scientific Name | Abundance |
|--------------------|-----------------------------------|------------------|
| Brown Trout | <i>Salmo trutta</i> | 261 |
| Tessellated Darter | <i>Etheostoma olmstedi</i> | 56 |
| Eastern Mudminnow | <i>Umbra pygmaea</i> | 8 |
| Common Shiner | <i>Luxilus cornutus</i> | 7 |
| Bluegill | <i>Lepomis macrochirus</i> | 3 |
| White Sucker | <i>Catostomus commersonii</i> | 3 |
| Largemouth Bass | <i>Micropterus salmoides</i> | 2 |
| Blacknose Dace | <i>Rhinichthys atratulus</i> | 2 |
| Chain Pickerel | <i>Esox niger</i> | 1 |
| Smallmouth Bass | <i>Micropterus dolomieu</i> | 1 |
| Redfin Pickerel | <i>Esox americanus americanus</i> | 1 |