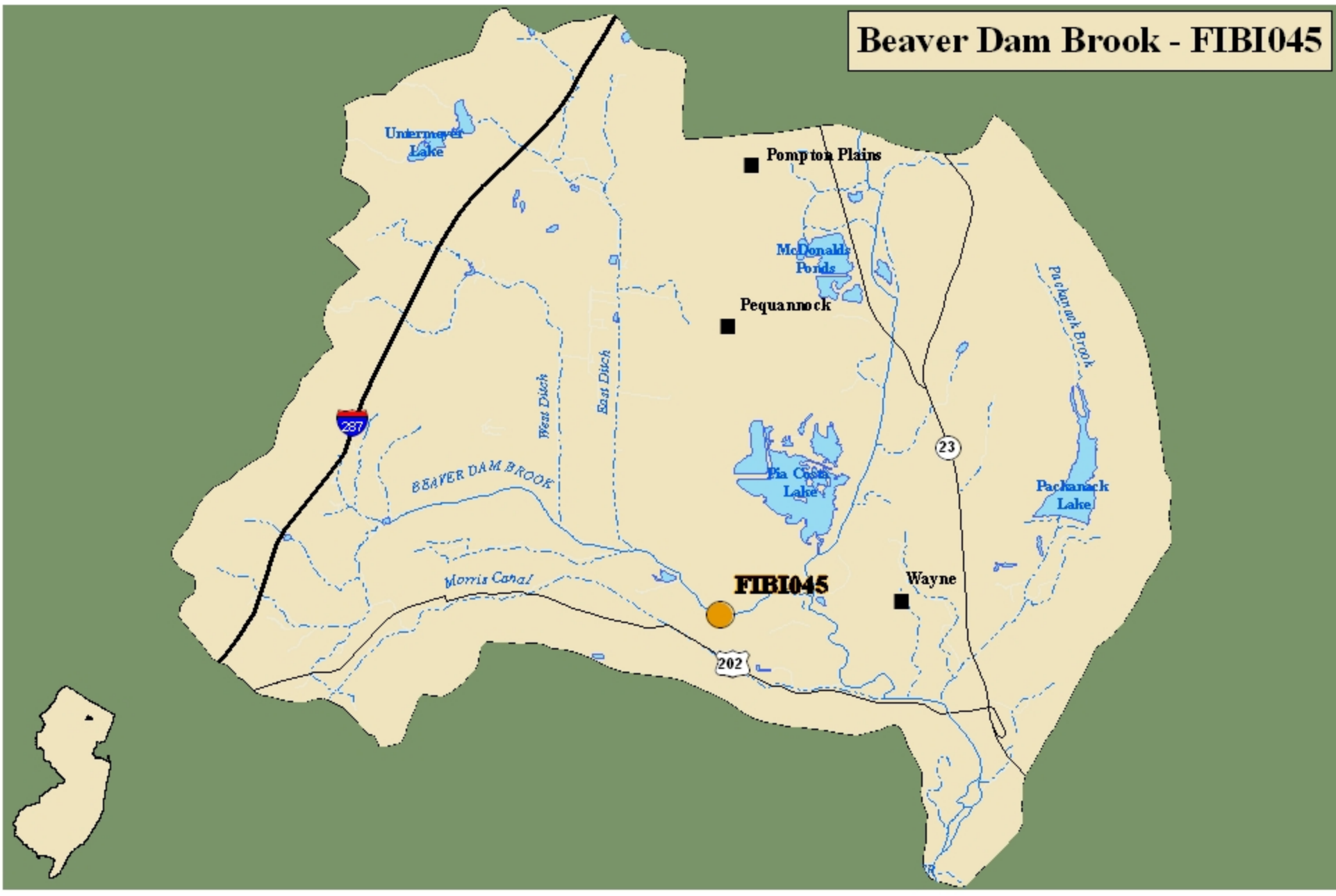
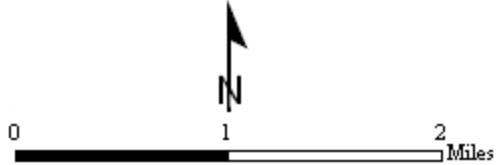


Beaver Dam Brook - FIBI045



Excellent	FIBI Sampling Location
Good	1st & 2nd Order Streams
Fair	3rd Order and Higher Streams
Poor	



SUMMARY OF RESULTS – FIBI045

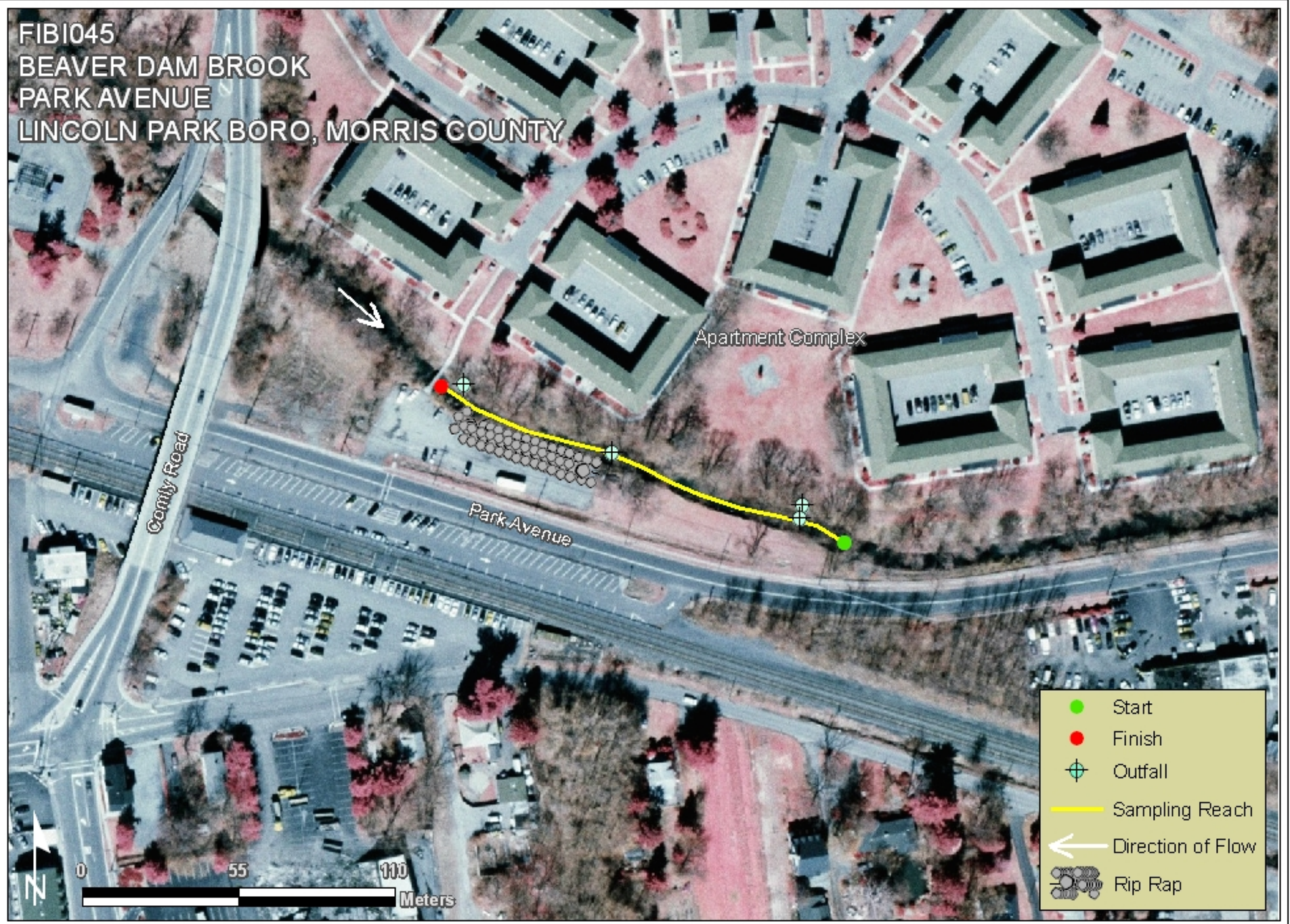


1. Stream Name:	Beaver Dam Brook
2. Sampling Date:	6/07/2007
3. Sampling Location:	Off Park Avenue
4. Municipality:	Lincoln Park Boro
5. County:	Morris
6. Watershed Management Area:	3
7. Contributing Drainage Area (Sq. Mi.):	12.54
8. Electrofishing Gear:	2 Backpacks
9. FIBI Score and Rating:	Round 1* Fair (32); Round 2 Fair (30)
10. Habitat Score and Rating:	Round 1 Marginal (86); Round 2 Marginal (101)
11. Fishable Species Present:	Yes
12. Relevant AMNET ¹ Station Data:	
Proximity of FIBI station to AMNET station:	0.4mi upstream AN0269
AMNET Rating:	1993 – Moderate; 1998 – Moderate; 2003 – Severe
13. Stream Chemistries:	
Dissolved Oxygen (mg/l)	6.48
Temperature °C.	14.82
pH	6.65
Conductivity (µmhos/cm)	429
14. Length of Stream Sampled:	150m
15. Water Clarity:	Slightly Turbid
16. Average Open Forest Canopy:	0.3%
17. Discharge:	3.27 cfs
18. Substrate:	65% Gravel/Sand, 15% Cobble, 5% Boulder, 5% Mud, 10% Silt
19. Habitat:	20% Riffle, 50% Run, 30% Pool
20. Snags:	Yes
21. Periphyton:	None
22. Submerged Aquatic Vegetation:	No
23. Outfalls:	4
24. Number of Fish Species Identified:	15
25. Total Number of Fish Collected:	135
26. Number of Fish With Anomalies:	1
27. Other Observations:	Very little riparian buffer. Riprap used to stabilize right descending bank.

¹ AMNET is the acronym for the DEP's ambient benthic macroinvertebrate monitoring network – a series of 820 monitoring stations located throughout the state's waterways that collects data on the health of bottom dwelling stream fauna which in turn is used to assess general water quality

* Round 1 data was scored prior to the FIBI metric recalibration.

FIBI045
BEAVER DAM BROOK
PARK AVENUE
LINCOLN PARK BORO, MORRIS COUNTY



FIBI045-Beaver Dam Brook @ Park Avenue
Date Sampled - 6/7/2007

Excellent Good **Fair** Poor

	Score
# of Fish Species	5
# of Benthic Insectivorous Species (BI) (excluding White Suckers and Bullheads)	3
# of Trout and Centrarchid Species (excluding Green Sunfish and Bluegill)	3
# of Intolerant Species (IS)	1
Proportion of Tolerant Individuals	3
Proportion of Individuals as Generalists	1
Proportion of Individuals as Insectivorous Cyprinids	1
Proportion of Individuals as Trout *whichever gives better score OR Proportion of Individuals as Piscivores (excluding American Eel)*	5
# of Individuals in Sample (excluding Tolerant Species)	3
Proportion of Individuals w/disease/anomalies (excluding blackspot)	5
Total	30

Stream Rating	
45-50	Excellent
37-44	Good
29-36	Fair
10-28	Poor

HABITAT ASSESSMENT FOR *HIGH GRADIENT STREAMS* Beaver Dam Brook (FIBI045) - 6/7/07

	Condition Category			
	Optimal	Suboptimal	Marginal	Poor
1. Epifaunal Substrate /Available Cover Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are <u>not</u> new fall and <u>not</u> transient). SCORE 6	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
2. Embeddedness Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space. SCORE 11	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
3. Velocity/Depth Regimes All 4 velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (slow is <0.3 m/s, deep is >0.5 m) SCORE 16	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
4. Sediment Deposition Little or no enlargement of islands or point bars and less than 5% (<20% for low-gradient streams) of the bottom affected by sediment deposition. SCORE 8	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
5. Channel Flow Status Water reaches base of both lower banks, and minimal amount of channel substrate is exposed. SCORE 16	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
6. Channel Alteration Channelization or dredging absent or minimal; stream with normal pattern. SCORE 11	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
7. Frequency of Riffles (or bends) Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream <7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important. SCORE 6	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
8. Bank Stability (score each bank) Note: determine left or right side by facing downstream. SCORE 6 (LB) SCORE 8 (RB)	Left 10 9 Right 10 9	8 7 6 8 7 6	5 4 3 5 4 3	2 1 0 2 1 0
9. Bank Vegetative Protection (score each bank) SCORE 7 (LB) SCORE 3 (RB)	Left 10 9 Right 10 9	8 7 6 8 7 6	5 4 3 5 4 3	2 1 0 2 1 0
10. Riparian Vegetative Zone Width (score each bank riparian zone) SCORE 2 (LB) SCORE 1 (RB)	Left 10 9 Right 10 9	8 7 6 8 7 6	5 4 3 5 4 3	2 1 0 2 1 0

HABITAT SCORE

101

HABITAT SCORES	VALUE
OPTIMAL	160 – 200
SUB-OPTIMAL	110 – 159
MARGINAL	60 – 109
POOR	< 60

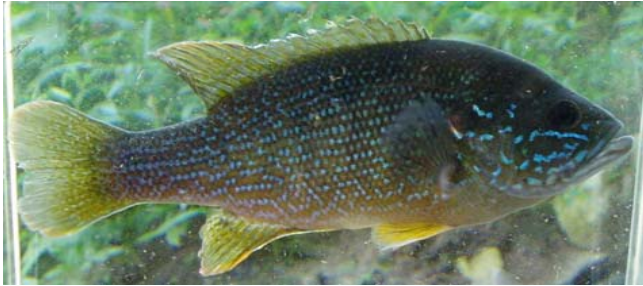
FIBI045-R2

Beaver Dam Brook

06/07/2007

Common Name	Scientific Name	Abundance
Green Sunfish	<i>Lepomis cyanellus</i>	37
Tessellated Darter	<i>Etheostoma olmstedii</i>	35
Redfin Pickerel	<i>Esox americanus americanus</i>	15
Creek Chub	<i>Semotilus atromaculatus</i>	13
Bluegill	<i>Lepomis macrochirus</i>	11
White Sucker	<i>Catostomus commersoni</i>	9
Eastern Mudminnow	<i>Umbra pygmaea</i>	6
Yellow Bullhead	<i>Ameiurus natalis</i>	2
Redbreast Sunfish	<i>Lepomis auritus</i>	1
Fallfish	<i>Semotilus corporalis</i>	1
American Eel	<i>Anguilla rostrata</i>	1
Blacknose Dace	<i>Rhinichthys atratulus</i>	1
Pumpkinseed	<i>Lepomis gibbosus</i>	1
Satinfin Shiner	<i>Cyprinella analostana</i>	1
Bluespotted Sunfish	<i>Enneacanthus gloriosus</i>	1

Species Identified at Beaver Dam Brook (FIBI045)



Green Sunfish



American Eel



Tessellated Darter



White Sucker



Eastern Mudminnow



Bluegill

Species Identified at Beaver Dam Brook (FIBI045)



Pumpkinseed



Redfin Pickerel



Creek Chub



Yellow Bullhead



Redbreast Sunfish



Bluespotted Sunfish

Species Identified at Beaver Dam Brook (FIBI045)



Satinfin Shiner



Blacknose Dace



Fallfish