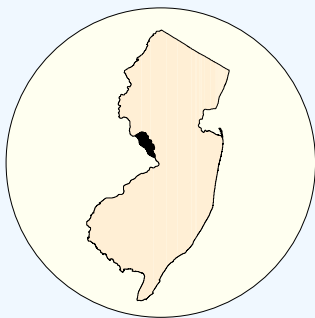
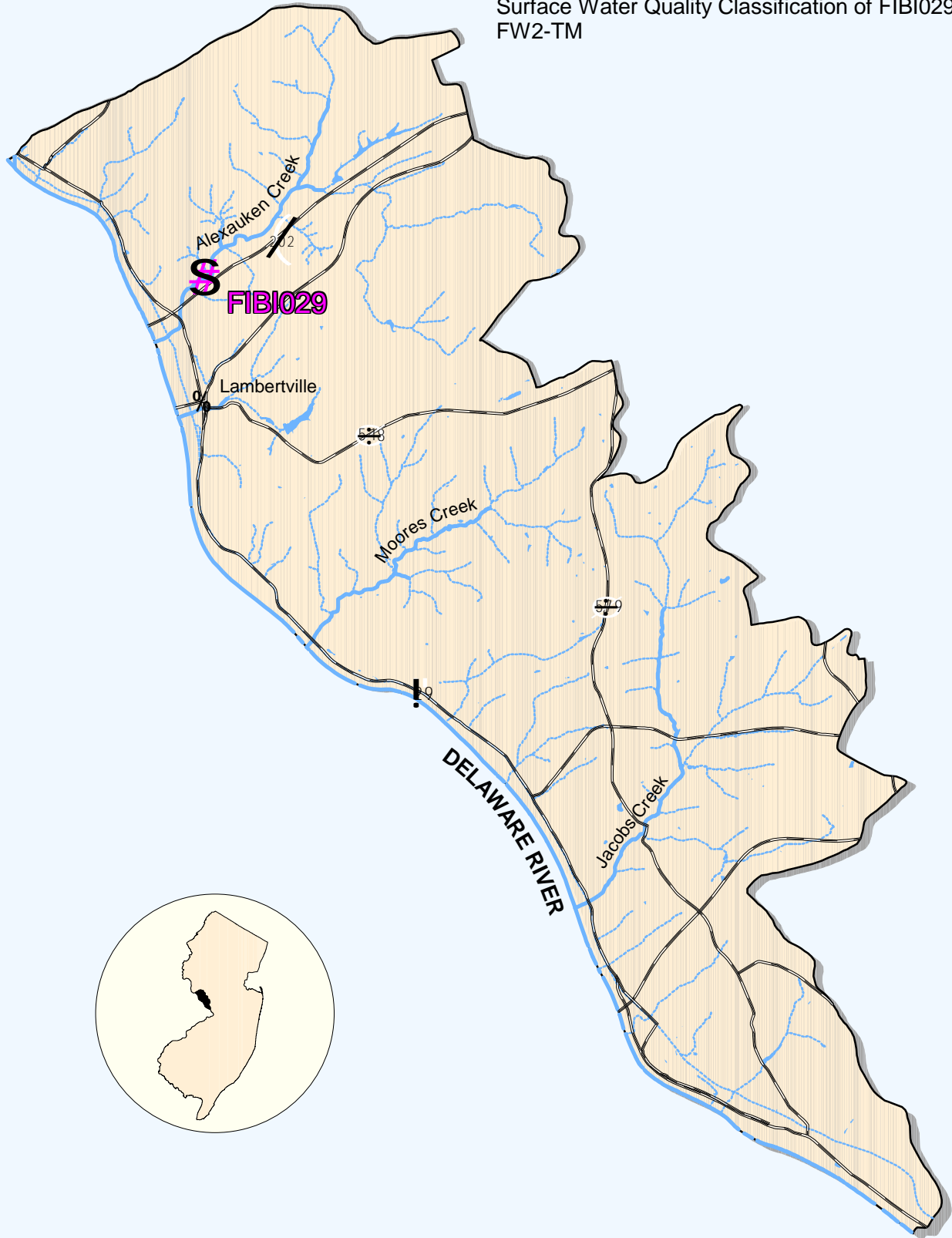


Alexauken Creek - FIBI029

Drainage Area of FIBI029: 14.3 Square Miles
Surface Water Quality Classification of FIBI029:
FW2-TM



FIBI Sampling Location

Small Streams (1st and 2nd Order)

Large Streams (3rd Order and Above)



0 1 2 3 Miles



SUMMARY OF RESULTS – FIBI029



1. Stream Name:	Alexauken Creek
2. Sampling Date:	07/12/2001
3. Sampling Location:	off Alexauken Ck Rd. (40 23 16N; 74 56 33W)
4. Municipality:	W. Amwell Twp.
5. County:	Hunterdon
6. Watershed Management Area:	11
7. Contributing Drainage Area (Sq. Mi.):	14.3
8. Stream Water Quality Class:	FW2-TM
9. FIBI Rating:	Good (38) (See Appendix 3)
10. Habitat Assessment Rating:	Suboptimal (158) (See Appendix 3)
11. Fishable Species Present:	Yes
12. Relevant AMNET ¹ Station Data:	
Proximity of FIBI station to AMNET station:	0.67 mi. upstream of AN0098
AMNET Rating:	1992-Non-Impaired; 1997-Non-Impaired
13. Stream Chemistries:	
Dissolved Oxygen (mg/l)	9.1
Temperature °C.	19.9
pH	7.9
Conductivity (µmhos/cm)	250
14. Number of Fish With Anomalies:	0
15. Length of Stream Segment Sampled	150 meters (492 feet)
16. Water Clarity:	Clear
17. Average Forest Open Canopy:	35%, Mostly Open
18. Discharge (ft. ³ /sec.):	10.9
19. Substrate: (qualitative)	20% Gravel/Sand, 75% Cobble, 5% Boulder
20. Habitat Type: (qualitative)	30% Riffle, 45% Run, 25% Pool
21. Other observations:	Trash (tires, batteries, debris)
22. Number of Fish Species Identified: (see next page)	16
23. Total Number of Fish Collected:	582

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.

FIBI029
ALEXAUKEN CREEK
Alexauken Creek Rd.
West Amwell Twp., Hunterdon Co.



LEGEND	
#	Start
#	Finish
—	Segment Sampled
Ⓜ	Direction of Flow

FIBI029 - Alexauken Ck off Alexauken Creek Rd
Date Sampled - 7/12/2001

Excellent **Good** Fair Poor

	Score
# of Fish Species	5
# of Benthic Insectivorous Species (BI)	5
# of Trout and Centrarchid Species (trout, bass, sunfish, crappie)	5
# of Intolerant Species (IS)	3
Proportion of Individuals as White Suckers	1
Proportion of Individuals as Generalists (carp, creek chub, banded killifish, goldfish, fathead minnow, green sunfish)	5
Proportion of Individuals as Insectivorous Cyprinids (I and BI)	3
Proportion of Individuals as Trout	
OR	
Proportion of Individuals as Piscivores (Excluding American Eel)*	1
Number of Individuals in Sample	5
Proportion of Individuals w/disease/anomalies (excluding blackspot)	5
Total	38

Stream Rating

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

HABITAT ASSESSMENT FOR HIGH GRADIENT STREAMS Alexauken Creek (FIBI029) – 7/12/01

	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 12	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 18	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 15	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 9	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 17	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 20	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 15	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 <u>7</u> (LB) SCORE <u>9</u> (RB)	Left Bank 10 9 Right Bank 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) More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, under story shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally. SCORE <u>8</u> (LB) SCORE <u>10</u> (RB)	Left Bank 10 9 Right Bank 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) Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone. SCORE <u>8</u> (LB) SCORE <u>10</u> (RB)	Left Bank 10 9 Right Bank 10 9	8 7 6 8 7 6	5 4 3 5 4 3	2 1 0 2 1 0

HABITAT SCORE

158

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

FIBI029 07/12/01

ALEXAUKEN CREEK

LISTED IN ORDER OF ABUNDANCE FOUND

COMMON NAME	SCIENTIFIC NAME	# FOUND	SIZE RANGE (INCHES)
White Sucker*	<i>Catostomus commersoni</i>	184	
Blacknose Dace	<i>Rhinichthys atratulus</i>	182	
American Eel*	<i>Anguilla rostrata</i>	137	
Redbreast Sunfish*	<i>Lepomis auritus</i>	15	1.8 - 5.5
Longnose Dace	<i>Rhinichthys cataractae</i>	13	
Rock Bass*	<i>Ambloplites rupestris</i>	11	2.4 - 6.3
Fallfish	<i>Semotilus corporalis</i>	11	
Tesselated Darter	<i>Etheostoma olmstedii</i>	8	
Margined Madtom	<i>Noturus insignis</i>	4	
Banded Killifish	<i>Fundulus diaphanus</i>	4	
Bluegill*	<i>Lepomis macrochirus</i>	4	1.8 - 3.3
Yellow Perch*	<i>Perca flavescens</i>	4	2.0 - 2.8
Smallmouth Bass*	<i>Micropterus dolomieu</i>	2	3.0 - 4.9
Swallowtail Shiner	<i>Notropis procne</i>	1	
Green Sunfish*	<i>Lepomis cyanellus</i>	1	2.7
Yellow Bullhead*	<i>Ameiurus natalis</i>	1	9.4

* Regulated as a fishable species under current New Jersey Fish and Wildlife codes

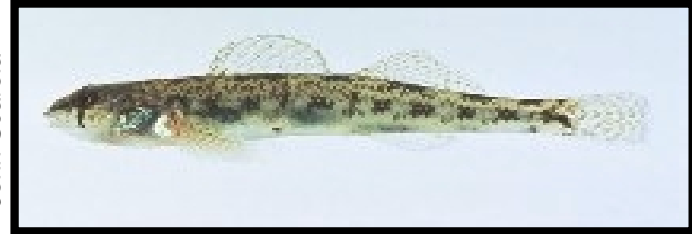
FIGURE 1.1 (Not To Scale)
Species Identified at Alexauken Creek (FIBI029)

John Scarola



White Sucker

John Scarola



Tessellated Darter

John Scarola



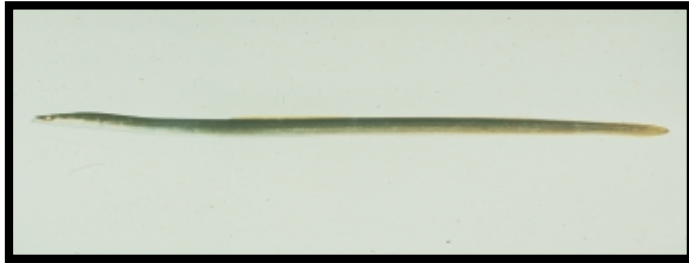
Blacknose Dace

Jenkins & Burkhead



Swallowtail Shiner

John Scarola



American Eel

John Scarola



Bluegill

**FIGURE 1.1 (Not To Scale)
Species Identified at Alexauken Creek (FIBI029)**



Shute

Longnose Dace



Shute

Margined Madtom



John Scarola

Yellow Bullhead



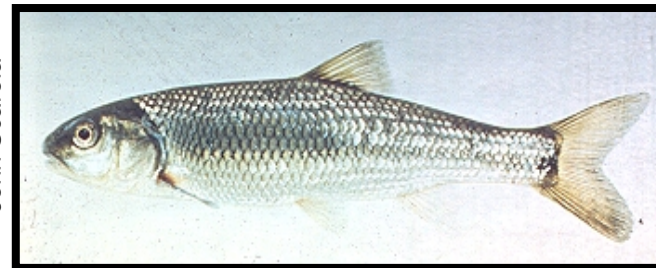
John Scarola

Redbreast Sunfish



John Scarola

Rock Bass



John Scarola

Fallfish

FIGURE 1.1 (Not To Scale)
Species Identified at Alexauken Creek (FIBI029)

John Scarola



Smallmouth Bass

John Scarola



Banded Killifish

John Scarola



Yellow Perch

Konrad Schmidt



Green Sunfish