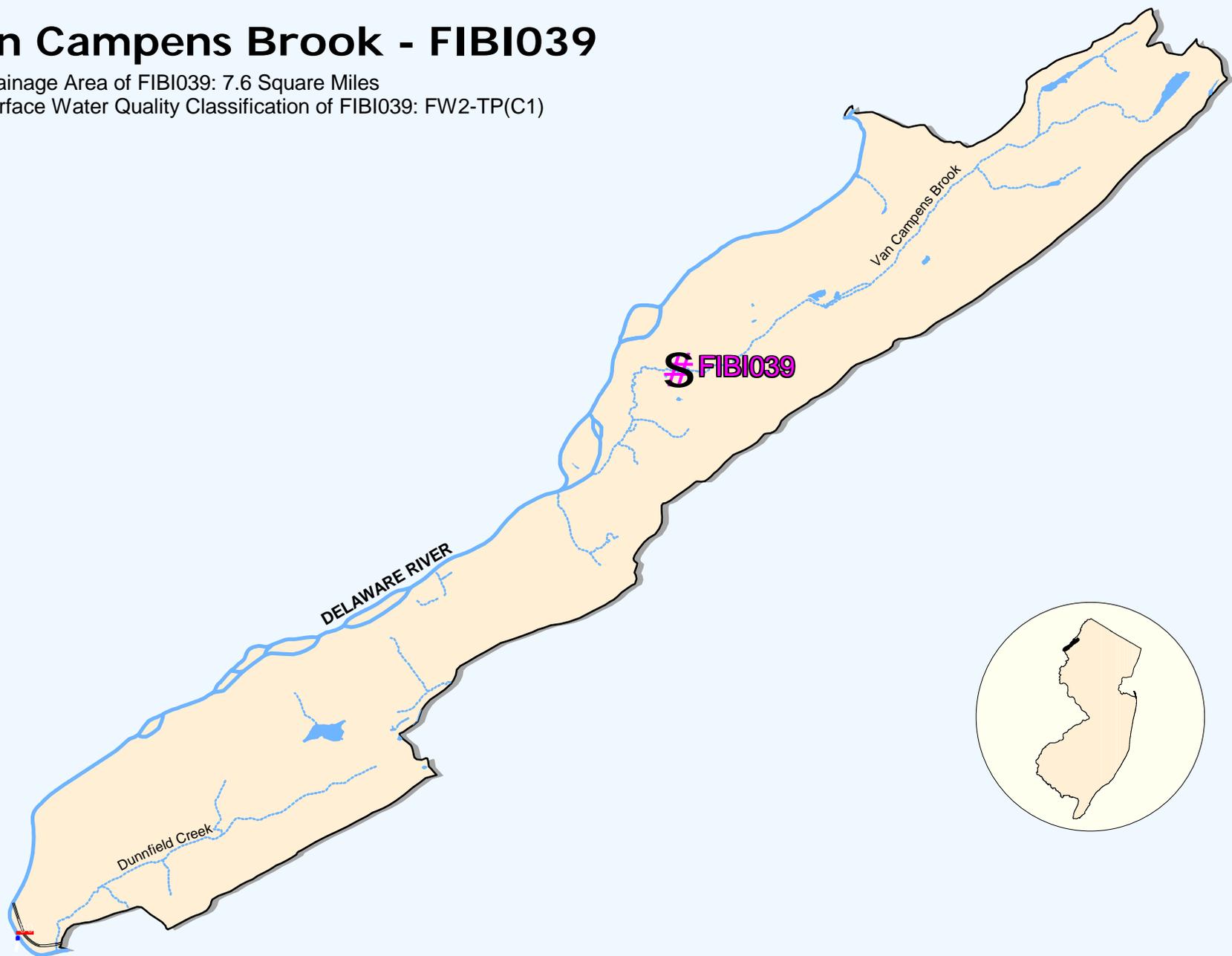


Van Campens Brook - FIBI039

Drainage Area of FIBI039: 7.6 Square Miles

Surface Water Quality Classification of FIBI039: FW2-TP(C1)



-  FIBI Sampling Location
-  Small Streams (1st and 2nd Order)
-  Large Streams (3rd Order and Above)



SUMMARY OF RESULTS – FIBI039



1. Stream Name:	Van Campens Brook
2. Sampling Date:	08/15/2001
3. Sampling Location:	Depew Rec Site Rd. off Old Mine Rd. (41 03 28N; 75 00 12W)
4. Municipality:	Hardwick Twp.
5. County:	Warren
6. Watershed Management Area:	1
7. Contributing Drainage Area (Sq. Mi.):	7.6
8. Stream Water Quality Class:	FW2-TP(C1)
9. FIBI Rating:	Excellent (50) (See Appendix 3)
10. Habitat Assessment Rating:	Optimal (186) (See Appendix 3)
11. Fishable Species Present:	Yes
12. Relevant AMNET ¹ Station Data:	
Proximity of FIBI station to AMNET station:	AN0011
AMNET Rating:	1992-Non-Impaired; 1997-Non-Impaired
13. Stream Chemistries:	
Dissolved Oxygen (mg/l)	9.43
Temperature °C.	18.6
pH	8.54
Conductivity (µmhos/cm)	89
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:	9%
18. Discharge (ft. ³ /sec.):	13.3
19. Substrate: (qualitative)	10% Gravel/Sand, 80% Cobble, 10% Boulder
20. Habitat Type: (qualitative)	60% Riffle, 30% Run, 10% Pool
21. Other observations:	N/A
22. Number of Fish Species Identified: (see next page)	13
23. Total Number of Fish Collected:	414

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.

FIBI039

VAN CAMPENS BROOK

Depew Recreation Site Road

Hardwick Twp., Warren Co.



Depew Recreation Site Rd.

Old Mine Rd.

Ⓡ

0 0.1 Miles



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

FIBI039-Van Campens Bk @ Depew Rec. Site Rd
Date Sampled - 8/15/2001

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)	5
Proportion of Individuals as White Suckers	5
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)	5
Proportion of Individuals as Trout	*whichever gives better score
OR	
Proportion of Individuals as Piscivores (Excluding American Eel)*	5
Number of Individuals in Sample	5
Proportion of Individuals w/disease/anomalies (excluding blackspot)	5
Total	50

Stream Rating

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

HABITAT ASSESSMENT FOR HIGH GRADIENT STREAMS Van Campens Bk (FIBI039) – 8/15/01

	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 18	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 19	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 20	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 20	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 20	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 20	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>6</u> (LB) SCORE <u>6</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) SCORE <u>10</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) SCORE <u>7</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

186

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

FIBI039 08/15/01

VAN CAMPENS BROOK

LISTED IN ORDER OF ABUNDANCE FOUND

COMMON NAME	SCIENTIFIC NAME	# FOUND	SIZE RANGE (INCHES)
Blacknose Dace	<i>Rhinichthys atratulus</i>	262	
Brown Trout*	<i>Salmo trutta</i>	56	2.6 - 14.2
American Eel*	<i>Anguilla rostrata</i>	40	
Creek Chub	<i>Semotilus atromaculatus</i>	22	
Longnose Dace	<i>Rhinichthys cataractae</i>	9	
Fallfish	<i>Semotilus corporalis</i>	8	
Brook Trout*	<i>Salvelinus fontinalis</i>	5	2.8 - 9.8
Cutlips Minnow	<i>Exoglossum maxillingua</i>	4	
Pumpkinseed*	<i>Lepomis gibbosus</i>	3	3.5 - 3.9
White Sucker*	<i>Catostomus commersoni</i>	2	
Yellow Perch*	<i>Perca flavescens</i>	1	2.0
Margined Madtom	<i>Noturus insignis</i>	1	
Tesselated Darter	<i>Etheostoma olmstedii</i>	1	

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

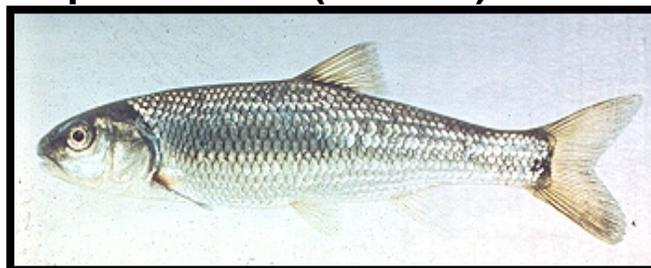
FIGURE 1.1 (Not to Scale)
Species Identified at Van Campens Brook (FIBI039)

John Scarola



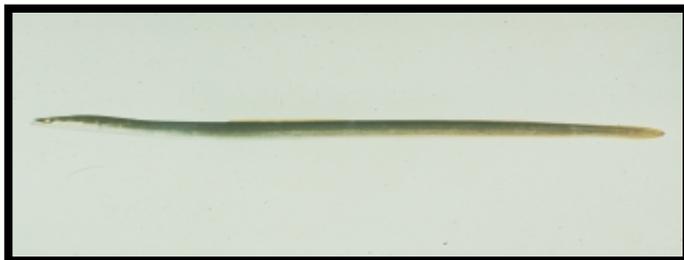
Blacknose Dace

John Scarola



Fallfish

John Scarola



American Eel

Shute



Longnose Dace

Konrad Schmidt



Creek Chub

Don Beimborn



Brook Trout

FIGURE 1.1 (Not to Scale)
Species Identified at Van Campens Brook (FIBI039)

John Scarola



Brown Trout

Jenkins & Burkhead



Cutlips Minnow

John Scarola



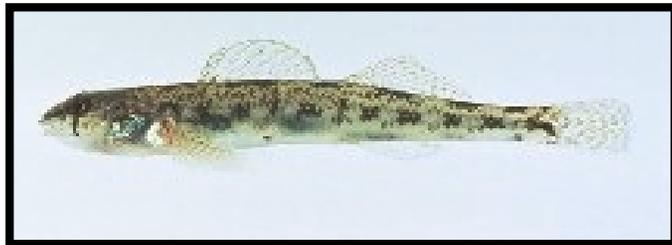
White Sucker

Shute



Margined Madtom

John Scarola



Tesselated Darter

John Scarola



Pumpkinseed

FIGURE 1.1 (Not to Scale)
Species Identified at Van Campens Brook (FIBI039)



Yellow Perch