



**Maine Department of Environmental Protection
Biological Monitoring Program
Aquatic Life Classification Attainment Report**

Station Information

Station Number: S-791	River Basin:	Kennebec
Waterbody: Jamie's Stream - Station 791	HUC8 Name:	Lower Kennebec
Town: Manchester	Latitude:	44 17 13.45 N
Directions: DOWNSTREAM OF JAMIE'S POND RD AND UPSTREAM OF OLD MILL DAM	Longitude:	69 51 12.54 W
	Stream Order:	1

Sample Information

Log Number: 2577	Type of Sample: ROCK BAG	Date Deployed: 7/20/2017
Subsample Factor: X1	Replicates: 3	Date Retrieved: 8/17/2017

Classification Attainment

Statutory Class: B	Final Determination: I	Date: 4/26/2018
Model Result with $P \geq 0.6$: I	Reason for Determination: Best Professional Judgement	
Date Last Calculated: 4/26/2018	Comments: Minimum Provision for Total Mean Abundance not met. Low flow.	

Model Probabilities

<u>First Stage Model</u>		<u>C or Better Model</u>	
Class A	0.01	Class A, B, or C	0.94
Class B	0.02	Non-Attainment	0.06
		<u>A Model</u>	
<u>B or Better Model</u>		Class A	0.12
Class A or B	0.00	Class B or C or Non-Attainment	0.88
Class C or Non-Attainment	1.00		

Model Variables

01 Total Mean Abundance	22.67	18 Relative Abundance Ephemeroptera	0.37
02 Generic Richness	25.00	19 EPT Generic Richness	10.00
03 Plecoptera Mean Abundance	0.00	21 Sum of Abundances: <i>Dicrotendipes</i> , <i>Micropsectra</i> , <i>Parachironomus</i> , <i>Helobdella</i>	0.67
04 Ephemeroptera Mean Abundance	8.33	23 Relative Generic Richness- Plecoptera	0.00
05 Shannon-Wiener Generic Diversity	4.16	25 Sum of Abundances: <i>Cheumatopsyche</i> , <i>Cricotopus</i> , <i>Tanytarsus</i> , <i>Ablabesmyia</i>	2.67
06 Hilsenhoff Biotic Index	4.82	26 Sum of Abundances: <i>Acroneuria</i> , <i>Maccaffertium</i> , <i>Stenonema</i>	0.00
07 Relative Abundance - Chironomidae	0.54	28 EP Generic Richness/14	0.50
08 Relative Generic Richness Diptera	0.48	30 Presence of Class A Indicator Taxa/7	0.29
09 <i>Hydropsyche</i> Abundance	0.00		
11 <i>Cheumatopsyche</i> Abundance	0.00		
12 EPT Generic Richness/ Diptera Generic Richness	0.83		
13 Relative Abundance - Oligochaeta	0.00		
15 Perlidae Mean Abundance (Family Functional Group)	0.00		
16 Tanypodinae Mean Abundance (Family Functional Group)	3.00		
17 Chironomini Abundance (Family Functional Group)	3.33		

Five Most Dominant Taxa

Rank	Taxon Name	Percent
1	<i>Stenacron</i>	11.76
2	<i>Tanytarsus</i>	10.29
3	<i>Microtendipes</i>	10.29
4	<i>Paraleptophlebia</i>	10.08
5	<i>Neocloeon (centroptilum)</i>	8.82



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Log Number: 2577

Town: Manchester
Waterbody: Jamie's Stream - Station 791

Date Deployed: 7/20/2017
Date Retrieved: 8/17/2017

Sample Collection and Processing Information

Sampling Organization: BIOMONITORING UNIT

Taxonomist: MICHAEL WINNELL

Waterbody Information - Deployment

Temperature: 19.9 deg C
Dissolved Oxygen: 9.29 mg/l
Dissolved Oxygen Saturation: 101.5 %
Specific Conductance: 46.5 uS/cm
Velocity:
pH: 7.41
Wetted Width: 4 m
Bankfull Width: 5 m
Depth: 30 cm

Waterbody Information - Retrieval

Temperature: 14.9 deg C
Dissolved Oxygen: 10.66 mg/l
Dissolved Oxygen Saturation: 104.8 %
Specific Conductance: 79 uS/cm
Velocity:
pH: 6.97
Wetted Width: 3.3 m
Bankfull Width: 5 m
Depth: 28 cm

Water Chemistry

Summary of Habitat Characteristics

<u>Landuse Name</u>	<u>Canopy Cover</u>	<u>Terrain</u>	
Swamp Hardwood	Dense	Rolling	
Upland Hardwood			
<u>Potential Stressor</u>	<u>Location</u>	<u>Substrate</u>	
	Above Town	Boulder	50 %
		Gravel	10 %
		Rubble/Cobble	35 %
		Sand	5 %

Landcover Summary - 2004 Data

Total Area (ac)	1079	High Int. Dev. %	0.0	Water %	0.0	Non-vegetated %	0.0
		Med Int. Dev. %	0.0	Wetland %	3.6	Tilled Agriculture %	0.2
		Low Int. Dev. %	0.4	Upland Woody %	92.5	Grassland %	3.2
		Development %	0.4	Natural %	97.4	Human Altered %	2.6
						Impervious %	0.4

Sample Comments

7/20/17: FISH PRESENT, FLOW VISIBLE.

8/17/17: FISH AND FROG OBSERVED. VERY LOW WATER, BUT FLOW VISIBLE.



**Maine Department of Environmental Protection
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Aquatic Life Taxonomic Inventory Report**

Station Number: S-791 Waterbody: Jamie's Stream - Station 791 Town: Manchester
Log Number: 2577 Subsample Factor: X1 Replicates: 3 Calculated: 4/26/2018

Taxon	Maine Taxonomic Code	Count (Mean of Samplers)		Hilsenhoff Biotic Index	Functional Feeding Group	Relative Abundance %	
		Actual	Adjusted			Actual	Adjusted
<i>Boyeria</i>	09020301004	0.33	0.33	2	PR	1.5	1.5
<i>Acerpenna</i>	09020401007		0.33	5	CG		1.5
<i>Acerpenna macdunnoughi</i>	09020401007001	0.33			--	1.5	
<i>Neocloeon (Centroptilum)</i>	09020401017		2.00	2	CG		8.8
<i>Neocloeon (Centroptilum) triangulifer</i>	09020401017001	2.00			--	8.8	
Heptageniidae	09020402	0.33	0.33		--	1.5	1.5
<i>Stenacron</i>	09020402014		2.67	7	SC		11.8
<i>Stenacron interpunctatum</i>	09020402014045	2.67			--	11.8	
Leptophlebiidae	09020406	0.33			--	1.5	
<i>Habrophlebia</i>	09020406023		0.38		--		1.7
<i>Habrophlebia vibrans</i>	09020406023072	0.33			--	1.5	
<i>Paraleptophlebia</i>	09020406026	2.00	2.29	1	CG	8.8	10.1
<i>Eurylophella</i>	09020410036	0.33	0.33	3	CG	1.5	1.5
<i>Cernotina</i>	09020603006	0.33	0.33		PR	1.5	1.5
Limnephilidae	09020610				--		
<i>Psilotreta</i>	09020614068		0.33	0	SC		1.5
<i>Psilotreta frontalis</i>	09020614068134	0.33			--	1.5	
<i>Molanna</i>	09020615069		0.33	6	SC		1.5
<i>Molanna blenda</i>	09020615069133	0.33			--	1.5	
<i>Ablabesmyia</i>	09021011001		0.33	8	PR		1.5
<i>Ablabesmyia mallochi</i>	09021011001004	0.33			--	1.5	
<i>Conchapelopia</i>	09021011004	0.33	0.33	6	PR	1.5	1.5
<i>Paramerina</i>	09021011013	1.33	1.33		--	5.9	5.9
<i>Trissopelopia</i>	09021011021		0.33		PR		1.5
<i>Trissopelopia ogemawi</i>	09021011021042	0.33			--	1.5	
<i>Zavrelimyia</i>	09021011022		0.67	8	PR		2.9
<i>Zavrelimyia thryptica group</i>	09021011022045	0.67			PR	2.9	
<i>Orthocladius</i>	09021011050		0.33	6	CG		1.5
<i>Orthocladius lignicola</i>	09021011050100	0.33			--	1.5	
<i>Micropsectra</i>	09021011070	0.67	0.67	7	CG	2.9	2.9
<i>Paratanytarsus</i>	09021011071		1.67	6	--		7.4
<i>Paratanytarsus longistylus</i>	09021011071126	1.67		6	--	7.4	
<i>Stempellinella</i>	09021011074		1.00	2	--		4.4
<i>Stempellinella leptocelloides</i>	09021011074001	1.00			--	4.4	
<i>Tanytarsus</i>	09021011076	2.00	2.33	6	CF	8.8	10.3
<i>Tanytarsus buckleyi</i>	09021011076139	0.33			CF	1.5	
<i>Microtendipes</i>	09021011094		2.33	6	CF		10.3



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<i>Microtendipes pedellus group</i>	09021011094166	2.33			--	10.3	
<i>Polypedilum</i>	090210111102		1.00	6	SH		4.4
<i>Polypedilum scalaenum group</i>	09021011102189	1.00			--	4.4	
<i>Ectopria</i>	09021109059		0.33	5	SC		1.5
<i>Ectopria leechi</i>	09021109059030	0.33			--	1.5	
<i>Promoresia</i>	09021113069		0.33		--		1.5
<i>Promoresia tardella</i>	09021113069052	0.33			--	1.5	